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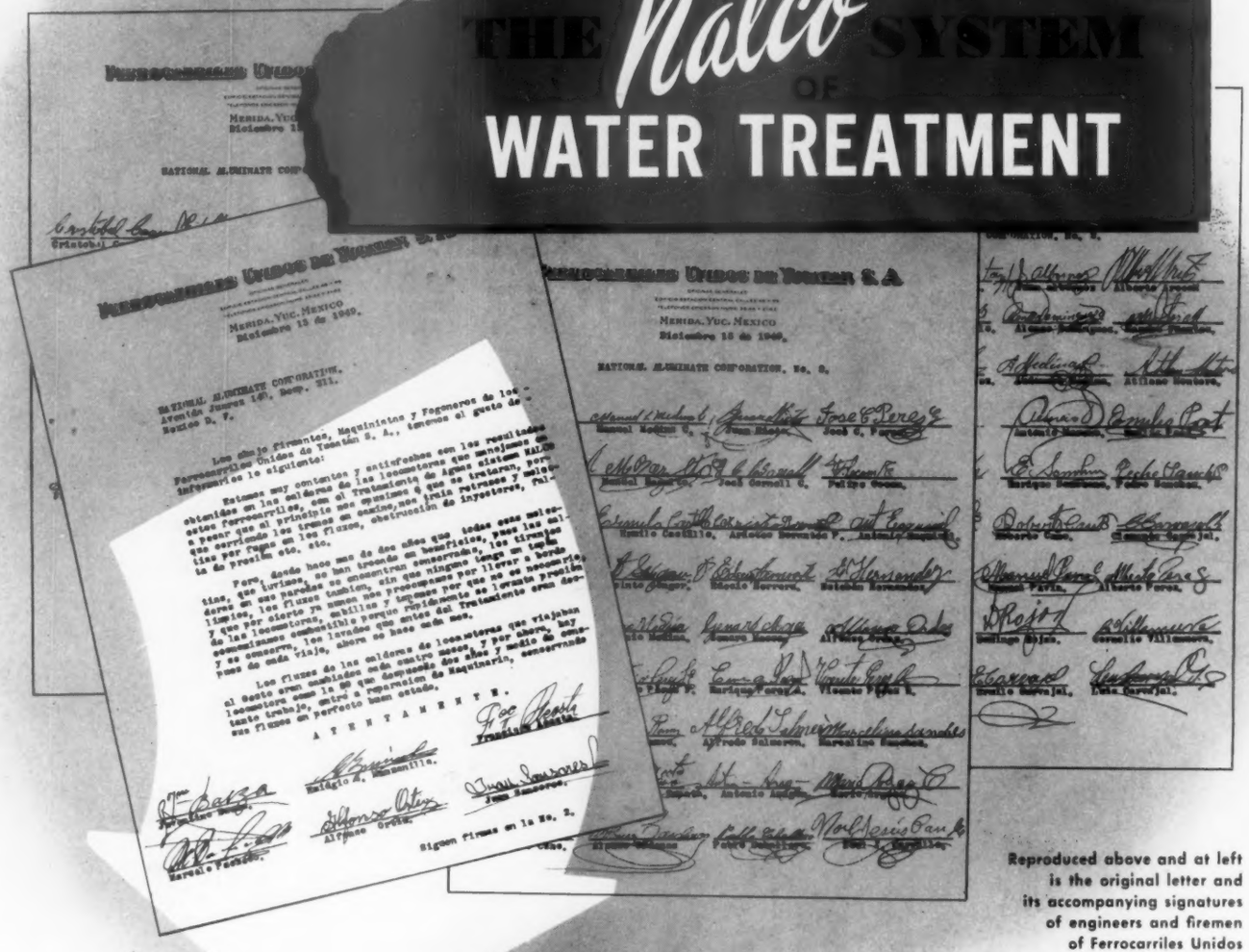
THE *Nalco* SYSTEM OF WATER TREATMENT



Reproduced above and at left is the original letter and its accompanying signatures of engineers and firemen of Ferrocarriles Unidos de Yucatan, S. A.

TRANSLATION

The undersigned Engineers and Firemen of the Ferrocarriles Unidos Yucatan, S. A., have the honor to inform you as follows:

We are very well pleased with the results obtained in locomotive boilers from the use of Nalco water treatments. At first we were opposed to such treatment because of train delays caused by leaky flues, low steam pressure, inoperative injectors, etc.

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ATTESTED

THIS letter from the operating personnel of Ferrocarriles Unidos de Yucatan again shows clearly the two great advantages of The Nalco System: First, substantial savings in operation and maintenance expense with locomotives free from foaming, scale and corrosion. Second, the complete confidence engineers and firemen have in The Nalco System when they realize its advantages to them on their own jobs.

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Vol. 129, No. 8 August 19, 1950

RAILWAY AGE

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H. E. McCandless, Circulation Manager, 30 Church Street, New York 7.

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WEEK AT A GLANCE

TIE RENEWAL DATA: Beginning on page 38 are detailed figures on 1949 tie renewals by major railroads in the United States and Canada. For the fourth successive year, the number of such renewals was less than in the preceding year—and also smaller, in 1949, than in any other year since detailed figures first became available in 1917—clear indication of the extent to which the railroads are profiting from long-term programs of wood preservative treatment. The figures also show that the average cost of treated ties was higher in 1949 than in 1948, but that the cost per track-mile of tie renewals was lower because of the sharp drop in number of ties used.

"EFFICIENCY INDICATORS": "Significant operating averages"—"efficiency indicators"—occupy first place in our News summary of the latest issue of the "Monthly Comment" of the I.C.C.'s Bureau of Transport Economics and Statistics. They show, gratifyingly, that in them the railroads did a better job in the first five months of 1950 than in the corresponding period of 1949 or the peak war year of 1944. That ought, incidentally, to be a pretty good answer to those favored competitors who so piously claim that "inefficiency" rather than subsidized competition is at the bottom of the railroads' troubles. Other articles in the "Comment" are also reviewed in the News.

30,000 CARS: Freight-car shortages are currently running about 30,000 per day, according to an A.A.R. statement which is the basis for one of our leading News stories. It is certainly unfair to put on the railroads alone all blame for that situation—especially considering how completely unprepared certain other people obviously were for developments of the past two months. But it is largely up to the railroads, with shipper cooperation, to correct it, through their big new car-buying program, stepped-up repair schedules and other means outlined by the A.A.R. That the buying program is rapidly getting up a full head of steam is amply evidenced by the volume of authorizations, inquiries and orders reported in the Equipment and Supply columns. (P.S.—There may be a Senate investigation of the freight-car situation. Remember General Short and Admiral Kimmel?)

AND JOE STALIN SMILES: Down in Washington, as our News pages report, the trainmen and conductors' representatives have walked out on White House wage-hour negotiations; renewed their request for government seizure of the railroads, and called token five-day strikes on terminal properties at Cleveland, Louisville and St. Paul. Up in Canada, the government has requested a 30-day postponement of a strike set for August 22 by 125,000 non-operating employees, who have summarily rejected a "final offer" from the railroads—an offer presented by the C.N.'s Donald Gordon in plain language that deserves careful reading. And so, we think, Joe Stalin must be smiling—or, more likely, laughing—in the Kremlin. Because the unions involved, opposed as they undoubtedly are to Communism and all it stands for, are giving more and more plausibility to one of Communism's major tenets—that a system of production based on voluntary cooperation of free men cannot be kept going. Our leading editorial points out that union actions are steadily undermining that system in this country; that if it goes under the unions will go under with it, and that their own survival demands a revision of their "strategy."

IN THE NEWS SPOTLIGHT: Car loadings reach highest total since November, 1948.—Short line non-op case goes to emergency board.—Travel credit cards dropped by 21 additional roads.—G.E. begins large-scale production of gas turbines.—I.C.C. discontinues Eastern l.c.l. case.—House committee to study transport preparedness.—Exhibitors listed for A.A.R. Signal Section, Roadmasters' and Railway Bridge & Building Association meetings.—General Motors Diesel, Ltd., opens new Canadian plant.

WHAT ABOUT PASSENGER CARS? Railroad officers, shippers and government officials are freely expressing quite proper concern about the sudden development of freight-car shortages. But little or nothing has been said about the fact that the railroads' total supply of passenger-coach seats and sleeping-car berths—especially the latter—is way below the 1943 figures. Yet, as an editorial on page 18 suggests, the very people who use planes and autos most intensively in peace-time would probably squawk the loudest if emergency restrictions on air and highway travel should so increase rail passenger traffic as to produce a real seat or berth shortage.

TRIMMING SHORT-LINE COSTS: Maine's 33-mi. Belfast & Moosehead Lake is operating proof of the fact that Class II short lines *can* make money. The secret, at least in the B.&M.L.'s case, seems to lie with the two 70-ton, 600-hp. G.E. Cooper Bessemer Diesels which the road bought late in 1946; they were, incidentally, fully paid for last June 10, and the B.&M.L. thinks that makes it one of the few roads in the country which can claim outright, paid-up ownership of all its Diesel power. Significant facts and figures on what Dieselization has done for this "down East" railroad are included in the illustrated feature article beginning on page 20.

"CASCADES": Continuing its long-term policy of providing the best, both in equipment and service, for its actual and potential passengers, the Southern Pacific put into operation last Sunday between San Francisco and Portland two new all-room 13-car "Cascades." Designed to match in service and beauty at night the year-old "Shasta Daylight" chair-car streamliners, the new trains clip two hours off the best previous sleeping-car schedules between the California and Oregon cities. The car equipment for the new trains, built by Pullman-Standard, is described in detail and copiously illustrated in the article which starts on page 28. Motive power is provided by 6,000-hp. Alco-G.E. Diesels.

ANOTHER $500,000,000 WORTH!

A far-reaching program for rail transportation — designed to meet the rising needs of commerce and the demands of national defense — was adopted by the member lines of the Association of American Railroads at a meeting in Chicago on July 28.

As part of that program, the railroads have placed, or are in the process of placing, orders for more than $500,000,000 worth of new freight cars. This brings the total spent on improvements in railroad plant and equipment since World War II to more than 5 billion dollars.

In the past ten years, the railroads have built and bought 600,000 new, bigger and better freight cars, 11,000 new Diesel units, and 1,700 new and improved steam locomotives, besides making great improvements in tracks, terminals, signals, shops, and every part of the railroad plant.

In addition, railroads are speeding up the return to service of freight cars awaiting repair, and are taking steps — with the cooperation of shippers and government agencies — to secure the maximum utilization of all available cars.

The program of the railroads is an essential part of any increase in national production — *for neither in commerce nor in defense can America produce and use more of anything than can be hauled.* There is no way in which the nation's effective hauling capacity can be expanded so quickly and with such small demands upon man power and materials, as by adding to the serviceable freight car fleet of the railroads.

In meeting transportation demands in World War II, the railroads enjoyed splendid cooperation from users of transportation, much of it organized and carried out through the Shippers Advisory Boards and their local Car Efficiency Committees; and the helpful assistance of an outstanding government agency, the Office of Defense Transportation. With this same sort of cooperation and with an opportunity to secure necessary man power and materials, the railroads will reach the goal to which they are pledged — adequate transportation for all America, in peace and in war.

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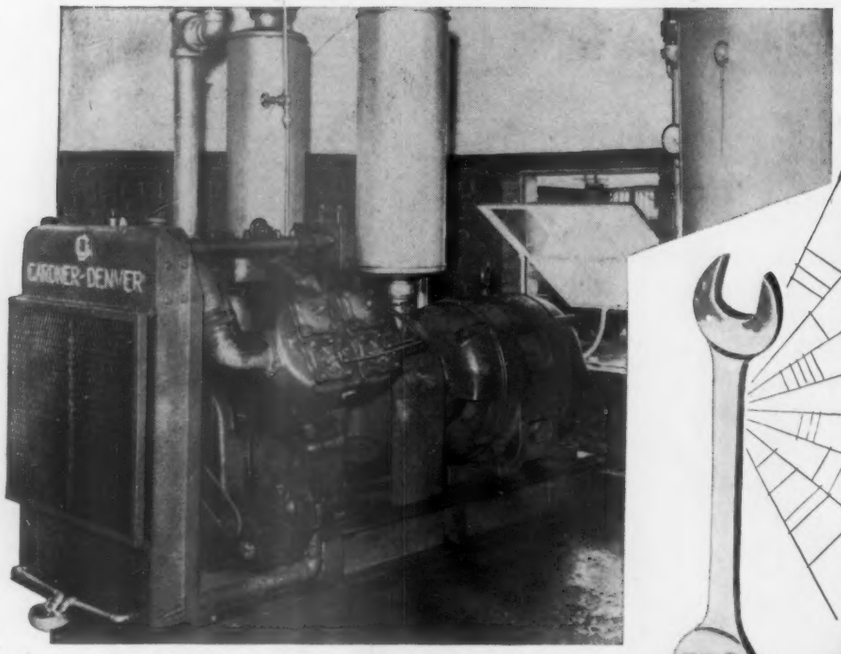

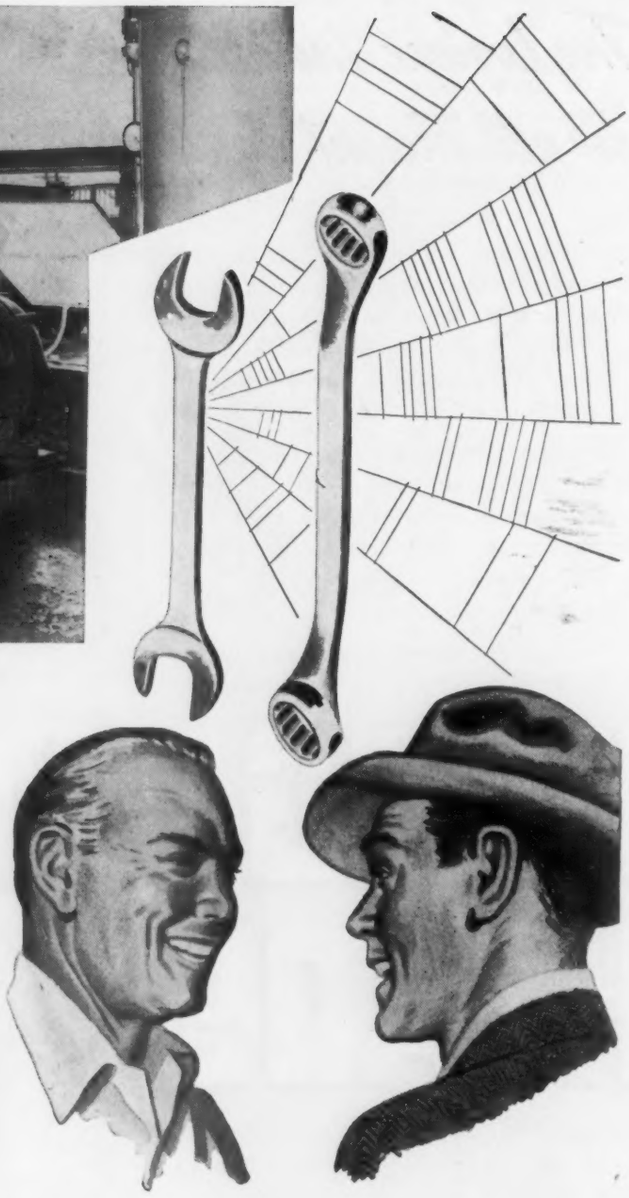

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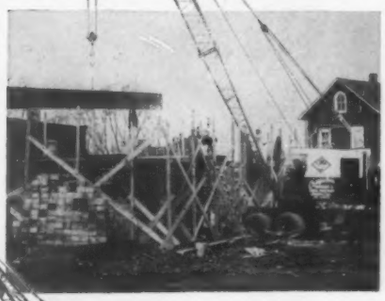

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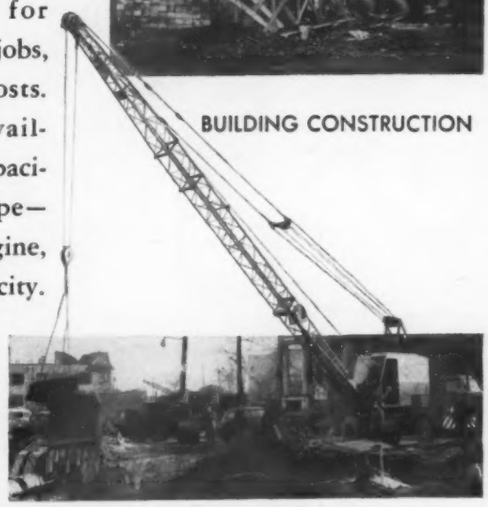
PLACING CONCRETE

HANDLING AGGREGATE



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These features, combined with the high dielectric and aging properties of Okonite Wild Up-River Fine Para rubber insulation, constitute a genuinely superior cable for Diesel Electric Wiring. For complete specifications, write for Bulletin RA-2078, The Okonite Company, Passaic, N. J.

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CAN THE RAILWAY UNIONS SURVIVE?

Old Joe Stalin in the Kremlin must be highly pleased at the insistence of the train service unions upon their pound of flesh from the railroads—regardless of the industry's obvious inability to yield to the exaction without financial paralysis, at a time when all its financial sinews, and then some, are needed to increase its carrying capacity to meet the military emergency. The total disregard in recent years by these and other railway unions of any rights at all on the part of the investing partners in the railroad business goes a long way toward giving plausibility to one of the main dogmas of Communism, which is that class warfare—the struggle of employees against management and owners, and vice versa—makes the ultimate decay and bankruptcy of capitalism inevitable.

Cooperation—Voluntary or Enforced?

There never was a great war with a clearer issue than World War III, which—"cold," "warm" or "hot"—has been going on practically ever since the fighting in World War II came to an end. This issue is simply whether industry is going to be organized and kept in production by the voluntary cooperation of free citizens—investors, employees, managers—as in the United States, or by enforced cooperation supervised by the police, as in Russia. Any group of Americans acting in a manner to sabotage the productivity of our free system of industrial organization or to drive one of the essential partners (e.g., the investors) out of the producing team, is casting a vote, whether knowingly or not, against the system of free investment, free competition, and free unionism and in favor of Russia's system of forced investment and forced labor.

Large-scale industry—mass production—has got to be kept going, unless half or more of the world's population will kindly consent to starve to death. Mass production requires team-work—not each man for himself, but each playing his role, big or little but essential, on a large team; no individual produces anything—all the individual does is help the team produce. In this country, so far, very few members of any industry team are playing on that team for any other reason than because they want to. For example, all the investors, the employees, and the management who comprise the teams known as the Santa Fe Railway or the New York Central or the Southern are on those teams because they want to be there. Nobody has compelled any of them to join and work with the particular team they are on, and any one of them can quit whenever he feels like it—if he sees an opening on another team which he thinks would suit him better.

The Russian brand of Communism has as one of its major tenets, reduced to its simplest terms, the belief that the process of organizing industries as groups of volun-

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tary team-workers, American style, is doomed to destruction. The Russians insist that our type of industrial organization gives rise to irreconcilable dissensions between owners and management on the one hand, and employees, on the other, which will ultimately bring production to a standstill—hence the necessity of wiping out the individual owners, and turning ownership over to the state. The flaw in the Russian argument lies in the assumption, so far unproved, that free employees, and free owners and management, are going to be too dumb to realize that voluntary cooperation is to their mutual advantage, and is preferable to cooperation by coercion.

The Danger to Unionism

There is no real reason for class warfare—and there should be no suport of it by employees if they will stop to realize that, when ownership is taken away from individuals and given to the state, the *actual* owners turn out to be the political leaders. If the employee does not like this group of owners to work for, he is out of luck, because there are no other employers to turn to, as there still are here in America. It has been truly said that industry can operate without unions, but that it cannot operate without management. If, therefore, unionism becomes so recalcitrant that management can no longer manage to keep industry in effective and solvent production, then, by some means or another, unionism will have to go. Nothing could be more calamitous to the well-being of the average employee.

The editor of this paper was raised in a railway union household. His memory goes back to the days when the unions were weak; when a division superintendent could tell a system general chairman where to head in, leaving the general chairman with no further effective recourse. This experience has led to an unalterable conviction that unions—or, at least, the possibility of unionization—are, in an industry as large as the average railroad, a highly desirable check on the tendency toward arrogance and arbitrary treatment of subordinates which is inherent in every human being who is given unbridled authority. Without a considerable degree of unionization—or the possibility of it—on the railroads the lot of the individual railroad employee might be pretty intolerable. Surely American unionists are not going to continue pushing their present political advantage so far that they will make themselves more of a menace to employees' welfare than an aid to it. Surely they will quit fighting the Kremlin's battle before it is too late.

Team-work we must have, because without team-work industry cannot operate, and if industry does not operate, the people will starve. There are two ways of achieving the necessary team-work—voluntary cooperation and involuntary cooperation, enforced by the police. The Russian policy of achieving team-work in industry by coercion is now opposing head-on the American policy of achieving this team-work by voluntary cooperation. Which one of these two policies is nearer to the actual facts of human nature, and hence is destined for victory, will be demonstrated as the struggle progresses. If the American policy is the right one, then unions must begin soon to act to show their awakening realization that investors and management are just as important in a team of producers as the employees are. If the unions come to this realization, they will quit trying to starve out the investor-members of the team and will quit trying to tie the hands of the management-members so they can no longer manage.

If the unions can come to this understanding, then there is no question that American industrial production will so far excell that of the coerced team-work of the Russians that the outcome of the present war, "hot" or "cold," will no longer be in doubt. If, on the other hand, unionism persists in policies which drive voluntary investors out of the teams engaged in industrial production, then involuntary investment—i.e., government ownership—will have to take the place of the voluntary investors. The American system of industrial organization would then so closely parallel the Russian system that there would no longer be anything to quarrel about between them. The unions would find that they cannot talk back to a government employer the way they do to a private employer, and unionism would either wither away or, as in Russia, become more a means for coercing employees rather than for assuring them their liberties.

It is the function of a virile unionism to look after the interests of its members, but not to the extent of starving the other voluntary partners in production out of the business, or hamstringing them so they cannot function. There are no free unions—for very long—where there is no free investment. Management must be allowed to manage or production will fail and the people will starve. Nobody has more at stake in the successful protection and advancement of the voluntary American way of organizing and running large-scale industry than the unionists—or more to lose if the coerced Russian-style industrial organization should supersede the kind that has had its greatest development in the free countries of North America. The survival of the railway unions is a question which it is up to the unions themselves to answer, and they do not have much more time to revise their strategy to meet realistically the situation which confronts them and all Americans.

SHORTAGE OF PASSENGER CARS?

With all the proper concern the limited supply of freight cars has aroused, the decline in accommodations for passengers has had little notice—probably because no actual shortage of passenger equipment has occurred; unfortunately, so far, quite the contrary.

All the same, the fact might as well be faced that the railroads do not have as much passenger equipment today as they had when the big rush of war-induced travel hit them back in 1943. At the end of 1943 there were 20,491 coaches and coach-combinations which would seat about

1,480,000 people. At the end of 1949 there were 19,101 coaches and coach-combinations, with seats for 1,360,000 people.

As for sleeping accommodations, there were 7,667 sleeping cars with 215,000 berths at the end of 1943 and only 6,188 sleeping cars with 152,000 berths at the end of 1949. Berths reached a high of 268,000 in 1946 by reason of the troop-sleepers built during the war, but these cars have now been converted to other service.

If the automobiles and planes once more reduce their service to civilian traffic as they did during World War II, a lot of people who expect the railroads will, once again, be there with plenty of stand-by capacity to haul them around are probably going to be disappointed. The railroads might sing for them an adaptation of the old song, "If You Give All Your (Peacetime) Money to Some Other Girlie, Then You'll Get No (Wartime) Service from Me." There ought, in fairness, to be some method worked out whereby people who have been loyal customers of the railroads when they were shy of traffic would get first call on available facilities when and if facilities get tight again.

MAKING THE RIGHT RATE

Like the study of economics, that of railway freight rates is sometimes thought of as a dull subject. Actually, it is an interesting subject. What is more important, it is a vital one not only to us but to every person in the United States. Not a shipment moves anywhere in this country, whether large or small, whether to a great city or a village, that it does not move on a published rate in a tariff which is on record for all to see.

Rates, of course, do not create traffic. Some one has to have the desire to move raw materials from one place to another, thereby starting the flow of traffic that eventually reaches into every American home. But, although rates do not create the traffic, they can and do stimulate the traffic.

The Illinois Central takes a keen interest in establishing rates which are reasonable and fair and which will be beneficial both to it and to its shippers. Rate-making is a science, and its laboratories are the railroad rate departments and the regional rate associations. This railroad is a member of more rate conference groups than any other carrier in the country.

Except for the far west coast and east coast associations, we belong to every other important rate conference group. Our traffic men take an active part in the work of such important associations as the Central Territory Railroads, Western Trunk Line Committee, Southern Freight Association, Illinois Rate Committee, Illinois-Indiana Coal Traffic Bureau, Ohio River-Mississippi Valley Committee, the Southwestern Freight Bureau, and the Southern Ports Foreign Freight Committee.

Because our railroad lies in the heart of mid-America, we are directly interested in a wide variety of traffic movements. Not only do shippers on our own line call upon us, but shippers from other parts of the country also enlist our interest in the establishment of rates that will move traffic.

The public is given an opportunity to voice its views on any and all rate changes. Rate-making is a democratic process where hundreds of various elements are taken into account and carefully weighed in an effort to create a fair and equitable rate.

Our rate experts at Chicago, St. Louis, Memphis, New Orleans and Atlanta are committed to the never-ending task of forging a flexible rate structure. Of all the many services this railroad renders the public, none exceeds this one of rate-making as an important contribution to the health of American commerce.—*Illinois Central*

PREDICTIONS DO NOT ALWAYS COME TRUE

About a year ago the railroads were concerned over the potential effects of the 40-hour week. During the meeting of the A.A.R. Mechanical Division at Chicago in June, 1949, a railroad officer made the statement that "It has been estimated that *if we go along as we have in the past with present work methods* [the italics are ours] it will require more than 200,000 additional employees and will cost the railroads close to $510 million a year."

At that time it was suggested that the inauguration of the 40-hour week offered the railroads an opportunity of doing many things in the way of installing labor-saving facilities to which they had been somewhat indifferent theretofore. Faced with the possibility of increases in costs in a period when they also faced the prospect of declining revenues because of business conditions and post-war competition, it didn't take too much consideration for them to decide that they must move rapidly to effect economies that would offset part of the expected increases in the cost of doing business.

The roads were practical-minded enough to realize that if major economies were to be effected in the shortest possible time, it was logical to invest money where the greatest savings could be expected. Therefore, the decision to replace obsolete motive power resulted in a widespread installation of Diesel-electric locomotives which accomplished *immediate* economies in operating expense and gave promise of *long-term* savings in maintenance expense.

Buying new locomotives to effect short-term reductions in repair costs is an idea which can cause difficulties when the mileage that was bought with the new power has been run out—unless the replacement of obsolete power by new power is part of a broad program to control motive-power operating costs by the installation of collateral facilities to enable the new power to function with the greatest degree of sustained efficiency. The railroads made substantial expenditures for new shop and terminal facilities for Diesel power which, to quote some mechanical people, have fallen far short of what is needed to keep the maintenance cost of this power within reason. Incidentally, it should once more be noted that the roads have spent very little to modernize the facilities with which steam power is serviced and maintained—in spite of the fact that there are still 26,921 steam locomotives in service.

The opportunities that existed a year ago to effect economies in the field of equipment maintenance have, since then, been multiplied many times and the necessity for economy has likewise been increased by inflationary conditions. It is worth observing, however, that predictions of the disastrous effect of the 40-hour week have not yet been borne out by the record, particularly of mechanical department operations; comparative cost figures show that new facilities and new methods have reduced the use of high-rated man-hours. That is what modern facilities are for, and the experience of the past year merely shows what can be accomplished if a real effort is made.

No. 50, a 70-ton G. E. Cooper-Bessemer Diesel, has more than quartered fuel costs on the B. & M. L.'s four daily scheduled runs. The afternoon train eastward (above) handles freight, passengers, mail and express

Diesels Trim Short

The Belfast & Moosehead Lake is one of a number of Class II railroads that disproves the popular notion that short lines can't make money. During 1948 and 1949, the B. & M. L. carried more than five per cent of gross through to net income, an accomplishment in no small measure related to the road's Dieselization in late 1946.

The Belfast & Moosehead Lake runs 33 mi. from Burnham Junction, Maine, a station 94 mi. north of Portland on the Maine Central's Portland-Bangor line, to the tidewater port of Belfast. The road is controlled by the city of Belfast, its principal stockholder. Daily freight service and double-daily passenger service is provided by one round-trip mixed train and one round-trip passenger run.

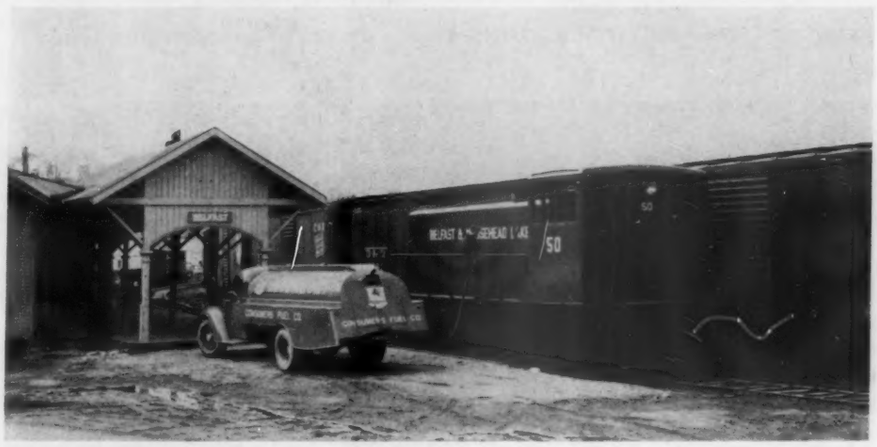
Avoiding a "Squeeze"

After World War II, the B. & M. L., in common with other short lines and the Class I railroads as well, found itself in the "squeeze" between rising costs and diminishing traffic. Coal, for example—which has to be transported long distances to reach the road—had risen in cost from a prewar average of about $7.50 a ton to $11.83 in 1946. And maintenance on the three "hand-me-down" steam locomotives was going up and up.

In considering Dieselization, B. & M. L. officers recognized that they could not expect to realize intensive utilization of the new power. If the road were to replace its three steam engines with two Diesels, a maximum of only about 4,000 locomotive-hours a year could be anticipated, or only 22.8 per cent utilization. Therefore any return on the investment would have to come chiefly through fuel economies. Two General Electric Cooper-Bessemer powered 70-ton, 600-hp. Diesel-electric locomotives were determined to be satisfactory for negotiating the steep grades, suitable for the 75- and 85-lb. rail, and adequate for the tonnage requirements, which vary between 500 and 750 on the average train. Each engine would cost $52,250, with a 10 per cent cash payment on delivery and the balance in 12 equal semi-annual installments with 2½ per cent interest on the unpaid balance. The conclusion of the road's studies was that, even with less than 25 per cent utilization, all factors considered, the two locomotives should save $21,462 annually, representing a return of approximately 20.5 per cent.

Paid For in 3½ Years

The purchase was consummated in late 1946. The anticipated economies were exceeded—a return of 31.3 per cent being realized on the investment. Fuel costs alone dropped from about $24,000 annually to about $6,000. The light utilization had minimized maintenance costs. All of the performance requirements have been met by a wide margin. With the savings which the new power permitted, and an improved level of traffic, the road has been



Fueling up, before and after. Loading coal (above right) was a slow and costly procedure. Liquid fuel is delivered direct by the supplier (below right), eliminating storage requirements

Line's Transportation Costs

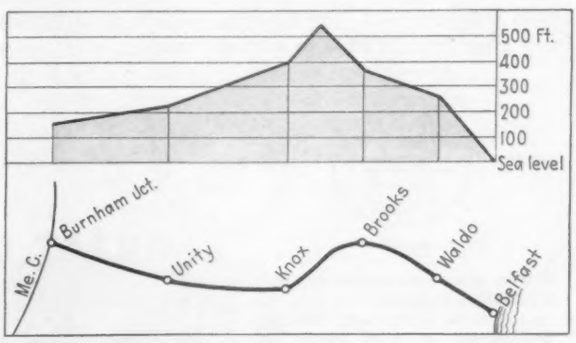
able to make periodic extra payments on the locomotives, reducing the interest charges, and on June 10 a final payment was made of $7,837.50, not due until December, 1952.

A comparison of operating results for 1945, the last full year of steam operations, 1947, first full year of all-Diesel operations, and for 1949, follows:

	1945	1947	1949
Operating Revenues	$130,323	$206,810	$198,942
Operating Expenses	119,430	149,562	165,542
Transportation Expenses	57,261	60,335	67,869
Revenue Ton-Miles (000)	2,003	3,451	3,377
Transportation Ratio	44.2	29.2	34.1
Operating Ratio	91.6	72.3	83.2

The new locomotives are turning in an availability record near 98 per cent as compared with 60 to 65 per cent for their steam predecessors. Each unit is used on alternate days, one remaining at Belfast as a standby, and for scheduled maintenance.

An important ancillary benefit of the Diesels is the elimination of fire hazard from sparks in the heavily forested areas through which the B. & M. L. passes. To quote from the "Waycar," the road's monthly magazine, "A few years ago B. & M. L. crews were chasing grass-fires half the time. . . . Cost the company a lot of money, too. When someone's pasture was burned over, *possibly* from a locomotive spark, it always turned out to be the most valuable piece of dead grass outside a natural history museum."



Diesels have permitted important economies in the operation of the 33-mile Belfast & Moosehead Lake, and have proved ideal for the rugged profile

MISSOURI PACIFIC LINES

keep boxcars rolling L·O·N·G·E·R

with N·S·F

Actual photographs of car interiors show how wooden floors break down and NAILABLE STEEL FLOORING stands up under concentrated loads

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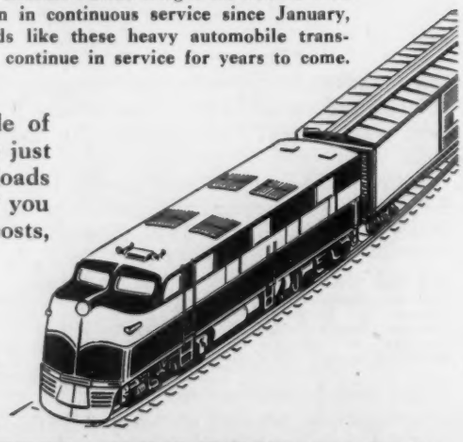
Missouri Pacific finds that wooden-floored cars look like this after 3 or 4 months. Virtually useless, they go on the rip track for repairs—are lost for days.

Not a Minute Lost in 18 Months

The interior of a Missouri Pacific freight car floored with N-S-F. It has been in continuous service since January, 1949, carrying loads like these heavy automobile transmissions—and will continue in service for years to come.

With the structural strength of NAILABLE STEEL FLOORING, made of corrosion- and abrasion-resistant N-A-X HIGH-TENSILE steel, there just aren't any breakthroughs—even when subjected to concentrated loads imposed by modern mechanical equipment or lading. With N-S-F you avoid damage and loss claims, reduce maintenance and repair costs, keep your freight cars in service longer.



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Further information on NAILABLE STEEL FLOORING is available from sales representatives in Detroit, Chicago, Philadelphia, St. Louis, Atlanta, San Francisco

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● That's right. Republic's Champion Air Hose will cut a big chunk out of your maintenance costs . . . relieve you of many a maintenance worry.

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You see, Republic's Champion is a top-quality, braided hose, combining ruggedness with extreme flexibility and light weight. It's built with a smooth, friction-reducing, oil-resistant inner tube, surrounded by multiple braids of specially processed, chemically strengthened yarn. Its thick, armorlike safety cover wards off destructive blows from falling objects . . . stands firm against abrasion and wear.

Champion Air Hose, with the yellow safety cover, is available in braided, mandrel-cured construction in 50-foot lengths.

Your local Republic Distributor can help you choose the right hose for your job. Consult the yellow pages in your telephone directory for his name or write direct for information.

Remember, for nearly a half century, Republic Rubber has been **the** specialist in the field of industrial rubber. Make it your headquarters for all your needs.

Pioneers in the use of COLD RUBBER

INDUSTRIAL RUBBER PRODUCTS BY

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A *quality* box car . . .

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UNARCO

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Features

- Rugged Neoprene-coated asbestos jacket. Special rust-proof hooks and retainer washers for fast, positive, permanent lacing.
- Amosite asbestos woven blanket-type insulating filler with water-repellent treatment, for highest efficiency and maximum protection against all weather conditions. Will not shake down or disintegrate from severe shock or vibration.
- Unarco exclusive type sealing laps provide a permanent, positive seal. Added protection against moisture penetration.

THE ORIGINAL LACE-ON TYPE PIPE INSULATION

Since its introduction 25 years ago as the first lace-on type pipe insulation—Unarco Wovenstone has been continuously improved in insulating efficiency to meet current needs of longer, high-speed trains and the need for ever-increasing operating economies. Today, as always, it stands alone as the nation's Number One railroad pipe insulation.

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WOVENSTONE Lace-on Pipe Insulation • INSUTAPE Wrap-on Pipe Insulation • INSUTUBE Slip-on Pipe Insulation • UNARCO Asbestos and Semi-Metallic Packings • UNARCO Asbestos Cloth and Tape • UNARCO Tailored-to-fit Insulations • UNARCO Refrigerator Car Blankets UNARCO Tank Car Blankets • EQUIPCO Hand Brakes • EQUIPCO Refrigerator Car Specialties: Circulating Fans, Bulkheads and Ice Grates UNIBESTOS High-Temperature Industrial Pipe Insulation • ESPRO Sheet-Metal and Steel-Plate Fabricating and Hot-Dip Galvanizing

UNION ASBESTOS & RUBBER COMPANY

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1949 RAILROAD CONSTRUCTION INDICES

The Engineering Section of the Interstate Commerce Commission's Bureau of Valuation has issued its Railroad Construction Indices for 1949, showing that last year's overall index for the country as a whole was 282, an increase of 1 point above 1948's 281, and up 50 points over 1946's 232.

The 1949 level was the highest in the history of the indices, which are weighted averages based on 1910-1914 costs as 100.

Indices of the country as a whole (shown in the accompanying table) are broken down in the bureau's compilation into eight regional sets. "The indices," the statement says, "represent territorial index factors and are of value in indicating trends. They are not necessarily applicable for use in determination of reproduction costs upon individual railroads."

Accounts for which indices are shown are primary accounts which are designated in the Classification of Investment in Road and Equipment of Steam Roads, as follows:

I—ROAD:

1. Engineering
2½. Other Right of Way Expenditures.
3. Grading
5. Tunnels and Subways
6. Bridges, Trestles, and Culverts
7. Elevated Structures
8. Ties
9. Rails
10. Other Track Material
11. Ballast
12. Tracklaying and Surfacing
13. Fences, Snowsheds, and Signs
16. Station and Office Buildings
17. Roadway Buildings
18. Water Stations
19. Fuel Stations
20. Shops and Engine Houses
21. Grain Elevators
22. Storage Warehouses
23. Wharves and Docks
24. Coal and Ore Wharves
26. Telegraph and Telephone Lines
27. Signals and Interlockers
29. Power Plants
31. Power Transmission Systems
35. Miscellaneous Structures
37. Roadway Machines
38. Roadway Small Tools
39. Public Improvements—Construction
44. Shop Machinery
45. Power Plant Machinery

II—EQUIPMENT:

51. Steam Locomotives
52. Other Locomotives
53. Freight-Train Cars
54. Passenger-Train Cars
56. Floating Equipment
57. Work Equipment
58. Miscellaneous Equipment

III—GENERAL EXPENDITURES

71. Organization Expenses
72. General Officers and Clerks
73. Law
74. Stationery and Printing
75. Taxes
76. Interest During Construction
77. Other Expenditures—General

Acct.	Per Cent	1915	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	'30	'31	'32	'33	'34	'35	'36	'37	'38	'39	'40	'41	'42	'43	'44	'45	'46	'47	'48	'49
ROAD																																				
1	2.83	101	110	134	159	178	214	175	157	171	171	166	166	164	161	160	152	143	131	127	131	131	133	142	138	137	140	151	175	186	187	197	216	245	271	270
2½	....	104	107	127	151	172	198	161	154	168	165	161	159	156	155	155	151	143	121	117	127	132	132	141	137	135	134	145	174	185	190	201	236	238	261	258
3	18.19	100	110	130	165	190	250	170	143	160	164	149	153	143	135	133	123	118	106	98	100	101	99	103	93	90	90	99	135	142	143	144	148	154	159	139
5	1.51	103	109	128	150	183	208	179	165	179	179	179	178	169	155	155	143	130	119	111	122	120	130	139	141	140	149	160	192	223	219	236	260	304	337	339
6	9.41	105	111	146	162	178	206	165	160	176	173	171	170	168	164	163	150	134	122	122	136	135	141	155	150	149	156	174	210	227	222	240	272	327	367	374
7	0.04	102	124	169	177	184	210	150	153	173	171	168	165	163	163	162	154	144	129	122	136	136	137	158	150	149	159	175	209	236	231	249	284	346	377	382
8	5.58	100	100	112	133	170	201	189	157	177	175	172	173	175	176	175	170	155	144	139	149	147	150	159	154	158	164	181	199	228	234	241	252	270	298	302
9	8.57	101	106	121	148	152	168	158	144	145	145	144	144	144	144	144	144	144	140	134	123	123	124	143	139	136	138	139	144	144	146	152	165	210	244	245
10	3.39	99	129	198	210	203	209	192	161	182	179	177	177	177	177	177	170	169	165	163	158	150	147	150	169	169	167	167	170	175	173	172	176	190	217	266	278
11	4.09	103	107	114	140	150	207	191	176	175	175	174	175	176	176	176	168	159	146	146	141	139	140	143	143	143	143	153	170	175	175	181	194	207	235	254
12	4.35	100	100	130	163	175	218	174	165	188	188	188	188	188	188	188	182	175	164	157	159	165	165	169	167	165	165	178	209	241	252	273	298	336	366	366
13	0.65	100	120	138	174	193	211	192	179	183	183	180	178	179	179	177	175	168	147	135	140	140	138	145	145	141	141	150	168	179	179	189	206	242	271	279
16	4.42	101	115	135	154	185	215	192	180	194	193	188	184	189	188	187	182	165	141	145	151	151	157	166	166	166	177	188	208	219	227	244	291	333	364	368
17	0.51	100	115	136	156	185	216	192	178	196	196	189	187	192	191	190	186	166	140	145	150	150	150	162	162	162	177	186	206	226	237	258	307	341	380	386
18	0.82	101	120	159	170	191	213	185	178	187	187	186	182	185	186	184	177	161	147	151	155	155	156	166	166	166	172	185	195	208	214	227	249	286	325	327
19	0.26	101	120	153	160	190	212	181	166	185	185	182	180	183	183	183	174	159	144	149	154	154	153	159	159	159	163	187	205	216	222	242	270	324	357	357
20	2.16	102	118	141	159	188	216	191	180	193	192	188	185	189	188	187	176	161	137	142	147	147	155	165	165	165	176	188	204	216	223	248	294	336	372	379
21	0.09	100	110	128	150	185	214	190	184	197	197	193	190	195	193	193	182	165	137	142	147	147	156	164	164	164	166	200	208	213	217	236	281	321	367	367
22	0.04	100	115	135	155	185	210	193	178	198	198	193	189	193	191	191	184	165	137	142	147	147	154	166	166	166	176	195	207	218	226	253	300	340	369	377
23	0.53	100	114	133	152	178	204	167	158	175	175	174	177	178	178	178	172	158	136	141	146	146	149	153	153	153	161	167	212	226	234	255	291	328	346	350
24	0.44	101	117	145	155	184	204	170	159	176	176	174	174	176	176	176	172	157	136	142	147	147	151	153	153	153	160	185	199	211	215	236	278	309	338	341
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37	0.08	105	113	127	146	158	170	162	149	151	151	151	151	151	149	148	147	144	138	138	147	147	147	161	153	154	158	169	169	187	187	187	222	244	267	270
38	0.05	100	100	179	179	184	202	181	170	173	185	190	190	191	191	190	160	155	155	150	150	150	160	170	180	180	180	190	200	200	200	200	245	280	310	315
39	1.07	104	108	137	161	182	208	171	164	178	175	171	169	166	165	165	161	153	131	127	139	137	139	152	145	142	146	163	198	208	203	217	236	278	316	321
44	0.95	115	126	155	192	200	210	198	173	183	185	185	186	187	189	191	176	166	155	155	179	179	179	198	200	202	212	224	224	228	236	236	271	300	319	324
45	0.33	115	126	155	192	200	210	198	173	183	185	185	186	187	189	191	176	166	155	155	168	166	171	180	177	180	189	194	194	190	190	191	217	240	240	242
Weighted Average 1–45	73.09	101	110	134	159	178	214	175	157	171	171	166	166	164	161	160	152	143	131	127	131	131	133	142	138	137	140	151	175	186	187	197	216	245	271	270
EQUIPMENT																																				
51	3.81	86	102	145	189	202	248	192	179	197	185	171	191	190	179	188	194	184	168	166	176	188	188	201	201	201	215	230	255	265	265	265	290	313	326	326
52	1.71	100	117	137	184	184	217	197	196	198	199	192	194	202	203	221	221	210	175	165	185	190	190	198	199	190	190	203	185	173	173	173	185	189	192	190
53	11.22	101	148	183	243	267	284	184	156	200	179	171	163	178	169	185	181	161	144	144	165	177	180	191	190	198	204	218	239	254	254	254	300	320	343	360
54	2.16	89	104	132	164	197	213	166	152	192	187	183	189	191	180	183	181	178	161	161	173	182	182	195	195	194	200	213	230	240	240	240	285	305	327	343
56	0.48	107	125	164	227	245	239	200	175	170	170	170	170	170	170	170	165	158	148	148	158	160	160	171	171	171	176	188	207	220	229	238	256	275	280	281
57	0.56	96	128	165	225	244	263	183	168	203	183	188	180	192	184	195	191	178	165	165	177	180	180	197	197	200	208	220	247	254	254	254	292	315	338	348
58	....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	150	155	165	180
Weighted Average 51–58	19.94	96	130	166	219	240	265	185	163	198	182	173	174	183	174	186	185	170	153	153	169	180	181	195	194	198	206	220	242	254	255	255	294	305	323	330
GENERAL EXPENDITURES																																				
71–75 & 77	0.89	101	110	134	159	178	214	175	157	171	171	166	166	164	161	160	152	143	131	127	131	131	133	142	138	137	140	151	175	186	187	197	216	245	271	270
76	6.08	102	111	135	161	181	216	176	158	172	172	167	167	165	162	161	153	144	132	128	132	132	134	143	139	138	141	152	176	187	188	198	217	246	272	272
Weighted Average 71–77	6.97	102	111	135	161	181	216	176	158	172	172	167	167	165	162	161	153	144	132	128	132	132	134	143	139	138	141	152	176	187	188	198	217	246	272	272
SUMMARY																																				
1–45	73.09	101	110	134	159	178	214	175	157	171	171	166	166	164	161	160	152	143	131	127	131	131	133	142	138	137	140	151	175	186	187	197	216	245	271	270
51–58	19.94	96	130	166	219	240	265	185	163	198	182	173	174	183	174	186	185	170	153	153	169	180	181	195	194	198	206	220	242	254	255	255	294	305	323	330
71–77	6.97	102	111	135	161	181	216	176	158	172	172	167	167	165	162	161	153	144	132	128	132	132	134	143	139	138	141	152	176	187	188	198	217	246	272	272
Weighted Average 1–77	100	100	115	142	173	193	226	177	159	177	174	168	168	169	164	166	160	149	136	133	140	142	143	153	149	149	153	165	188	200	201	209	232	257	281	282

Southern Pacific Places "Cascade" Streamliner in Service

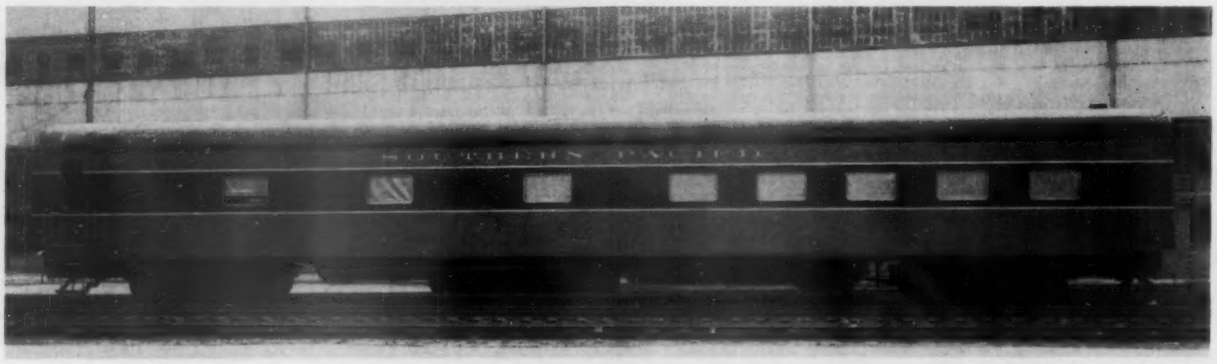
Each of two new 13-car trains includes eight sleeping cars and a 3-car diner-lounge unit, built by Pullman-Standard

As announced in the *Railway Age* of July 22, two faster new streamlined "Cascade" night trains, built by the Pullman-Standard Car Manufacturing Company, were placed in service on August 13 on the Shasta route of the Southern Pacific between San Francisco, Cal., and Portland, Ore., clipping two hours off the previous speediest sleeping-car train schedules between those two points. The trains carry through cars to accommodate travel to and from Seattle. They are the second pair of streamline trains inaugurated on this route in little more than a year, designed to match in service and beauty at night the "Shasta Daylight" streamliners.

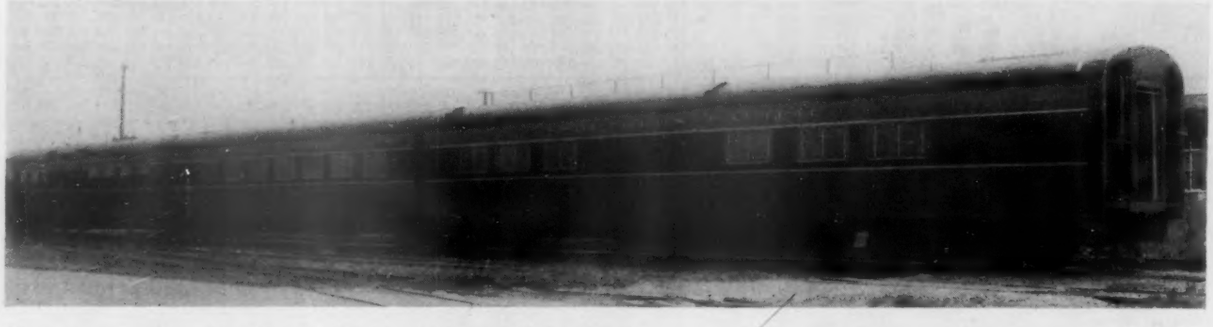
The 11 passenger-carrying cars in each "Cascade" include eight sleeping cars with a total of 130 private rooms, and the triple-unit "Cascade Club" which has a room over 130 ft. long for dining and lounging. All of this car equipment is part of an order for 41 new lightweight welded steel passenger cars recently built for the S.P. by Pullman-Standard.

Motive power for the new trains is furnished by 6,000-hp. Diesel-electric locomotives built by the American Locomotive-General Electric Companies. The overall length of each locomotive is 197 ft.; total weight 936,000 lb. distributed over 18 axles, or about 50,000 lb. on each of 12 driving axles. Power, provided by three 2,000-hp. V-type Diesel engines, is transmitted to the driving axles by 500-hp. direct-current electric motors. Additional non-rated horsepower furnishes auxiliary power for air brake compressors, lighting and other train requirements. Three 3,000-lb. Vapor steam generators supply steam for train heating.

Like the well-known "Larks" on the Southern Pacific Coast line between San Francisco and Los Angeles, the exteriors of the new "Cascade" cars are finished in two-tone gray with lighter striping. The locomotives feature the familiar red and orange of the "Daylights." Car interiors are mostly in pastel colorings. The "Cascade Club" has been especially designed to reflect the motif



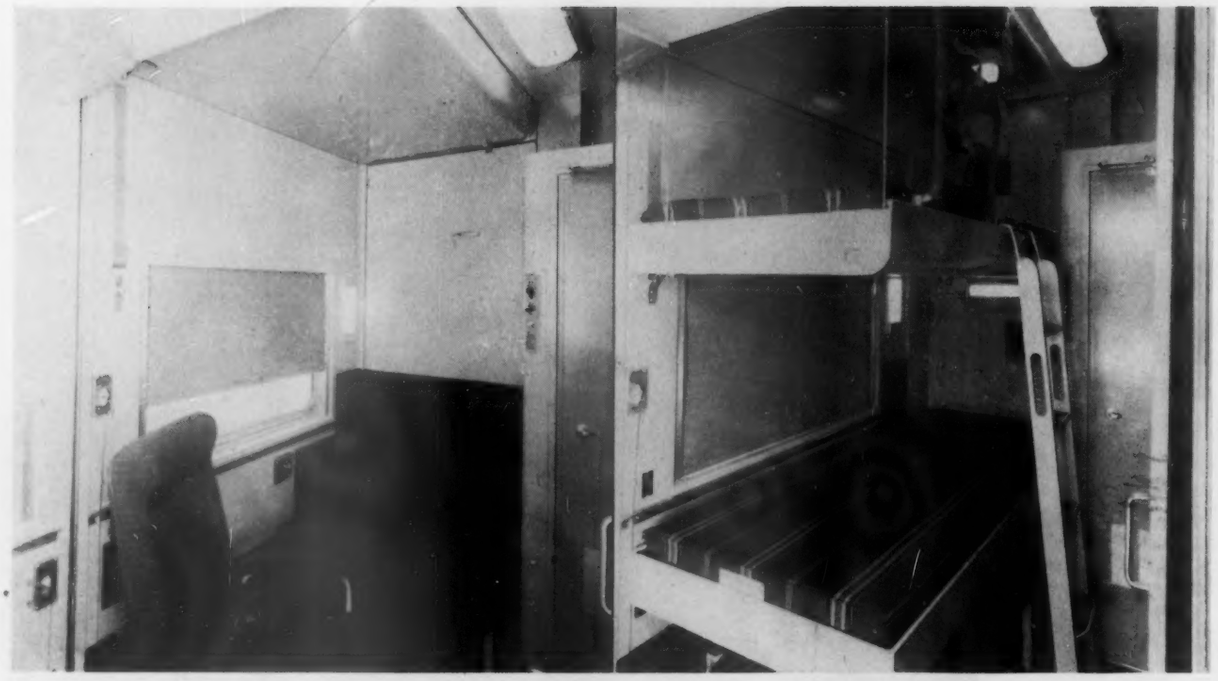
One of the 10-roomette, 6-double-bedroom cars



The three-car articulated "Cascade Club" which operates as a unit

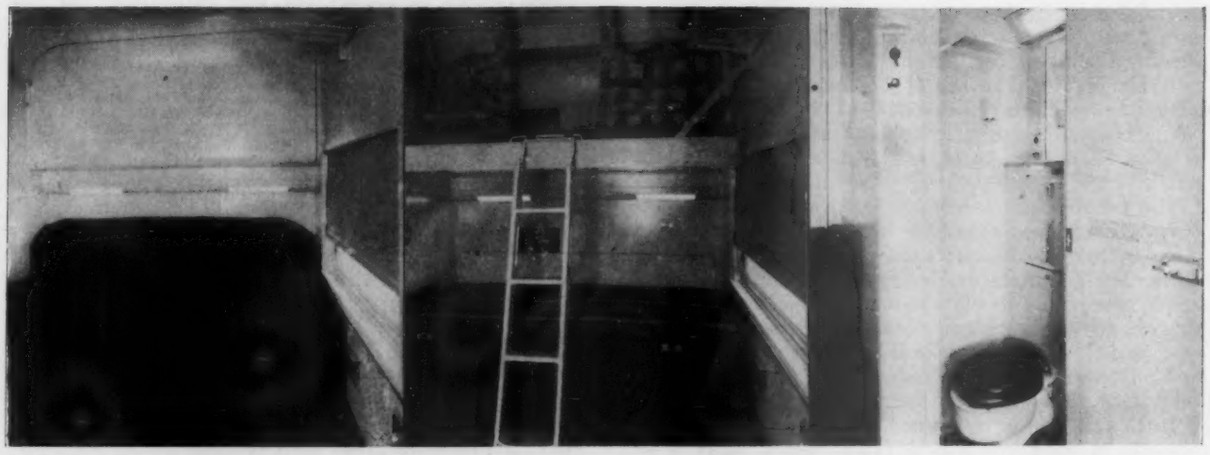
Right — Lounge section of the club car looking towards the bar

Below—At one of the club-car articulated connections

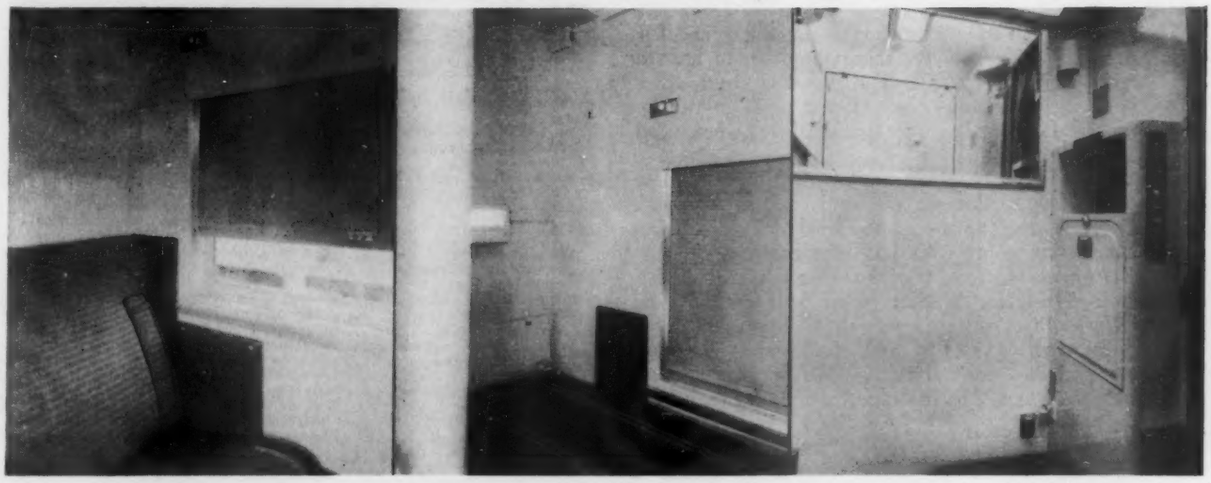


Typical longitudinal bedroom (left); with beds down (right)

Dining-room details including lighting arrangement



One of the cross bedrooms (left); with beds down (center); and toilet room (right)



Typical roomette arranged for day occupancy (left); bed down (center); toilet facilities (right)

of the northern California and southern Oregon scenic country through which the trains pass.

Types of Cars

There are five types of sleeping car accommodations in the consist of the "Cascade" streamliners, offering roomettes, bedrooms, bedrooms en suite, compartments and drawing rooms. No open section space is provided. The 84 roomettes have private lavatory and toilet facilities, and the 46 larger rooms each have private enclosed toilet and washroom facilities. All cars have electro-pneumatically operated end doors.

Each train includes two cars with 22 roomettes each; three cars having 10 roomettes and six bedrooms each; one 12-bedroom car; one car with four compartments, four bedrooms and two drawing rooms, and one car similar to the roomette car, but having a rounded end to complete the streamlining of the train.

Each room has individually controlled non-glare fluorescent lights for general illumination and individual reading use; individually-controlled heating to supplement the complete air conditioning of the train; full-length mirror; and circulating mechanically cooled drinking water. Each room also has electric razor outlets, ample hand luggage space, full length wardrobe closet, and at least one breather-type non-fogging window in addition to the private lavatory and toilet facilities.

The two non-passenger carrying cars in each train, located immediately behind the locomotive, are used for carrying baggage, express and mail.

Sleeping-Car Features

The roomette cars, with an average weight of 144,400 lbs., have roomettes in lengthwise arrangement. The bed, which is lowered from the wall behind a wide, foam rubber-upholstered sofa-type seat, is pre-made for immediate occupancy. A wash stand with hot and cold running water folds into the wall in the corner opposite the seat. A toilet with hassock-type cover is in the corner below the wash stand. In addition, each roomette has a full-length wardrobe closet and mirror, ample space for hand luggage and all the other new "Cascade" comfort-travel features.

Half of the roomettes are done in Cascade blue color schemes, with ceiling in cream yellow, walls of medium

blue and room entrance doors in dark blue. Carpeting is garnet with fern pattern, door curtains in rust color, and window shades in coral. Seats are upholstered in Cascade blue fabric. The other 11 roomettes have apricot color schemes, with ceilings done in light apricot, walls medium apricot and entrance doors in dark apricot. Window shades are coral, and seats are upholstered in red.

The 6-bedroom, 10-roomette cars weigh about 142,500 lb. each. The roomettes are similar in design to those in the 22-roomette cars, although color schemes differ. The bedrooms are larger than roomettes, having ample space for two persons each. Seating and bed arrangements are alternated crosswise or lengthwise of the car, paired so that two bedrooms — one lengthwise and one crosswise, can be used en suite by opening the folding partition between them.

In the BC (beds crosswise) type bedroom, one bed becomes a wide lounge-type foam rubber sofa in the daytime. In the BL (beds lengthwise) type bedroom, the bed and seat arrangement is similar to the roomette, with the addition of a comfortable, foam rubber movable lounge chair. In the BC-type, the second bed raises into the ceiling.

The bedrooms-en-suite arrangement is well suited for family travel, or for business men who wish to have a conference room en route. Because the bedrooms differ in pattern and furnishings, they offer a pleasant variety of accommodations, as well as spaciousness, when used in this way.

Colorings of the rooms are matched in pairs, one set having a beige color scheme with ceilings of cream yellow, walls of medium beige and doors of dark beige. Carpeting is rust color with leaf patterns and curtains are coral, while sofas and chairs are upholstered in turquoise colored fabric. Another set of bedrooms is done in tan, with ceilings of light tan, walls medium tan, doors dark tan. Carpeting is rust and chairs and sofas are upholstered in rust colored fabric. For variety, another set of bedrooms has Cascade blue carpeting. Some have turquoise shades.

The 12-bedroom cars weigh 142,500 lb. each. They have six BC bedrooms and six BL bedrooms, paired in interior decoration and usable en suite. One set of bedrooms features a Cascade blue color scheme, with cream yellow ceiling, medium blue walls, blue carpets, and upholstery of rust colored fabric. The alternate pairs are painted in tan, with blue curtains and rust colored upholstery. As is the case in all bedrooms on the train, there is ample space for a service table for games or writing.

Compartment Cars

In the bedroom-compartment-drawing room cars, which weigh an average of 140,600 lbs., the compartment accommodations are exceptionally spacious and may be combined en suite with another compartment or with a drawing room. Each compartment includes lavatory and toilet facilities in an enclosed annex to the room, as does each drawing room, plus a movable foam rubber upholstered lounge chair and the foam rubber lounge-type sofa seat. When beds in compartments are made down, the lounge chair is still available for use.

The four compartments in these cars are furnished in an apricot scheme — the ceiling in light apricot, the walls medium apricot and the doors dark apricot. Carpeting is Cascade blue with a fern pattern. The seats and folding chairs are upholstered in rust colored fabric.

Each of the four drawing rooms has three beds — a disappearing wall bed, an upper bed that raises to the ceiling, and a bed that becomes a wide foam-rubber lounge-type sofa. There is ample space for the daytime use of two movable foam-rubber upholstered lounge chairs, giving the space a living room effect. There are two large windows.

The drawing room ceilings are in cream yellow, walls of medium blue and doors of dark blue. Window curtains are of coral, with aluminum-colored backing, and window draperies are Commando gold.

The two double bedrooms, similar to those previously described, include two BC and two BL bed arrangements and can be used alone or paired en suite.

The "Cascade Club"

The "Cascade Club" is a three-car articulated unit, the interior of which appears to be only two units — the dining-lounge space being one room slightly over 130 ft. long, served by the kitchen unit. The "Cascade Club" is located near the middle of the train for easy access from all cars in either direction.

The dining-lounge portion of this unit is basically done in cool colors, with enough accents of reds and cedars to give it a great deal of sparkle and color interest. Here is where decorators have called directly on the scenic attractions of the Shasta route for their

PARTIAL LIST OF MATERIALS AND EQUIPMENT ON THE NEW SOUTHERN PACIFIC "CASCADE" PASSENGER CARS

High-strength steel	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Trucks	General Steel Castings Corp., Granite City, Ill.
Truck springs	Railway Steel Spring Div., American Locomotive Co., New York
Wheels	Standard Steel Works Div., Baldwin Locomotive Works, Burnham, Pa.
Roller bearings	Hyatt Bearings Div., General Motors Corp., Harrison, N. J.
Shock absorbers	Houdaille-Hershey Corp., Houde Engineering Div., Buffalo, N. Y.
Center-plate locking pins	W. H. Miner, Inc., Chicago
Hot-box journal alarms	Fenwal, Inc., Ashland, Mass.
Brake schedu'e	Westinghouse Air Brake Co., Wilmerding, Pa.
Disc brakes with Rolokron	Budd Co., Philadelphia, Pa.
Hand brakes	National Brake Co., New York
Couplers	National Malleable & Steel Castings Co., Cleveland, Ohio
Flooring, composition	Tuco Products Corp., New York
Diaphragms (inner) and vestibule curtains; window sash, double glazed	Adams & Westlake Co., Elkhart, Ind.
Insulation	Gustin-Bacon Manufacturing Co., Kansas City, Mo.
Glass, outer—¼-in. heat absorbing	Libbey-Owens-Ford Glass Co., Toledo, Ohio
Glass, inner—¼-in. laminated safety	Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Window Cappings	Formica Co., Cincinnati, Ohio
Aluminum interior finish	Aluminum Co. of America, Pittsburgh, Pa.
End-door operators	National Pneumatic Co., Rahway, N. J.
End-door locks	Dayton Manufacturing Co., Dayton, Ohio
Window shades and seat covering	Collins & Aikman Corp., New York
Rubber in passageways	Goodyear Tire & Rubber Co., Akron, Ohio
Sponge rubber carpeting	United States Rubber Co., New York
Floor covering, carpet	Beck & Blatchford Co., Chicago
Draperies	Goodall Fabrics, Inc., New York
Folding chairs in sleeping rooms	S. Karpen & Bros., Chicago
Air-conditioning system	Frigidaire Div., General Motors Corp., Dayton, Ohio
Air-conditioning and heat controls; zone heating system	Vapor Heating Corp., Chicago
Air outlets in rooms	Anemostat Corp. of America, New York
Air filters	Farr Co., Los Angeles, Cal.
Electric system	General Electric Co., Schenectady, N. Y.
Batteries	Edison Storage Battery Div., Thomas A. Edison, Inc., West Orange, N. J.
Generator drive	Spicer Mfg. Div., Danad Corp., Toledo, Ohio
Standby receptacles	Pyle-National Co., Chicago
Lamp regulators	Safety Car Heating & Lighting Co., New York
Annunciators	Edwards & Co., Norwalk, Conn.
Lighting fixtures	Luminator, Inc., Chicago
Warning light	Mars Signal Light Co., Chicago
Metallic steam connectors	Barco Manufacturing Co., Chicago
Steam-pipe covering	Johns-Manville, New York
Water coolers	Sunroc Refrigeration Co., Glen Riddle, Pa.
Drinking-cup dispenser	Dixie Cup Co., Easton, Pa.
Paints, exterior	E. I. du Pont de Nemours & Co., Wilmington, Del.
Paints, interior	Sherwin-Williams Co., Cleveland, Ohio

color and design inspirations, with Canyon tan, Odell blue, cedar and deep Cascade blue forming the basic color treatment.

The lobby ends of the club are each treated as a color unit, with ceilings of Cascade blue and walls of Redwood burl finish. The semi-circular seats in this section are covered in leather, in a deep Columbia blue tone. The floors are done in Cedar red and Canyon tan, and, at the articulation, an inlay star in Cedar red is placed on a Canyon tan background in marbelized rubber tile. Curtains hiding the diaphragms at the articulation are deep blue leather.

The general color tones of the lounge section are Odell blue, Cedar and Cascade blue. The ceilings are done in a light Odell blue. In the dining section the ceiling is in light Canyon tan, colors descending through deepening blues to the carpet. Table tops are pearlescent, inlaid. The bar section in the center of the car is done in gold, silver and blue with gold tone mirrors and murals.

Communication . . .

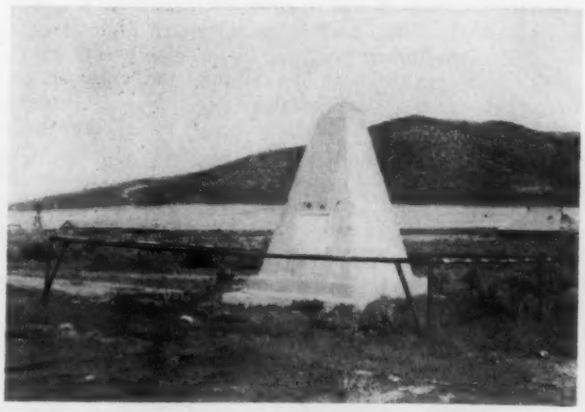
Seeks Permanent Care For Golden Spike Monument

400 West Madison Street,
Chicago 6

To the Editor:

As a citizen, and member of the railroad fraternity, and as one of the historians of the Union Pacific, I felt saddened and shocked at the complete neglect of the spot where occurred at least one of the most important and dramatic events in our history — the driving of the "Golden Spike" at Promontory, Utah.

The monument itself is in a fair state of preservation although it is somewhat cracked; there is some defacement of the legend, and it needs some repair to prevent further deterioration. Except for the land itself, the area immediately surrounding the monument is one of neglect and ruin. There is an iron railing, badly rusted and not very straight, which surrounds the monument. The immediate foreground is somewhat littered with a broken beer bottle or two, rubbish and junk. Immediately in front are a



few rotten ties lying on the ground. Two or three abandoned buildings, in various stages of ruin, are nearby. A little distance away is what appears to be an abandoned farm with some abandoned farm buildings and machinery. Not a human being was to be seen within range of one's vision.

It is comparatively easy to get to the spot, as the distance is only about 50 mi. from Ogden, and only about 25 mi. over a fair gravel road from the hard road at Corinne. It is much more accessible than, for example, the ruins of Fort Laramie, Wyo., which have been made into a national monument under the supervision of the National Park Service. Many other spots of historic interest have been made the subject of special monuments and, in some cases, have been taken over either by the National Park Service or some patriotic organization such as the Daughters of the American Revolution. Yet no one has had enough interest to do the modest little work necessary to put and keep this historic spot at Promontory in decently presentable condition.

The original line from Ogden to the meeting point at Promontory was constructed by the U. P.; while the line west of Promontory was constructed by the Central Pacific [now Southern Pacific]. After the junction of the two roads at Promontory, the U. P. portion of the line west of Ogden, that is to say, from Ogden to Promontory, was leased to the C. P., so that Ogden became the common terminus. Before the line was abandoned such service as there was over it was shown in Southern Pacific timetables. I suppose that whatever title either company had must have been lost when the line was abandoned, and the tracks pulled up, so that it would hardly be fair to charge either the U.P. or the S.P. for the neglect of this historic location. But that is no reason why our National Park Service, or perhaps some patriotic organization, should not add this spot to the national shrines that mark historic events in our history.

Nelson Trottman

[Mr. Trottman is assistant general solicitor for the Chicago & North Western. However, his letter is personal.]

[Railway Age referred Mr. Trottman's letter to F. M. Packard, executive secretary of the National Parks Association, Washington, D. C. Excerpts from his reply follow:]

"The National Park Service is constantly being besieged with proposals to undertake the administration of places of historical interest, a few of which are demonstrated to warrant such action. . . . The Park Service has had to discourage the addition of such areas to the park system, partly because the action would constitute a further drain on the meager funds of the Park Service, and it is difficult to induce Congress to provide extra funds for such areas.

"This does not mean that the Park Service would not encourage the restoration and preservation of the Golden Spike monument, for it has real historic value. There are, however, a number of alternative methods by which protection can be given to such a site. Congress has just enacted a National Historic Trust Act, under which historical objects, areas and buildings can be donated to the trust, and the trust can then either administer them itself, or it can arrange for some other agency to undertake protective action. The executive secretary of the trust is Fred Rath, American Society of Architects, Octagon House, 18th st. & New York ave., N.W., Washington, D. C."

Double to Single

The Southern has installed a remotely-controlled signal and interlocking system on a five-mile section of single track just north of Howell, Ga., which is 2.3 mi. north of the Atlanta terminal passenger station. In this territory, the Southern has rebuilt and enlarged its Inman freight yard. Previously, the main line was double-track throughout the 18 mi. from Atlanta past the yard and to Austell, Ga.

Inbound southward freights previously entered the north end of the yard via a main-line crossover and a side track crossover at North Inman, and outbound northward freight entered the northward main at North Inman. These crossovers were operated by hand-throw stands, operated by switchtenders.

Tracks at the south end of the yard terminated with inbound and outbound freight running tracks. The hand-operated switches involved were operated by switchtenders. Since freight trains were operated into and out of the two ends of the yard, passenger trains were the sole users of the two main tracks between Marietta Bridge and North Inman. In designing the new yard layout, it was decided to provide only a single-track main for passenger train movements around the yard. This was done to avoid the expense of constructing an additional main track. This expense would have been excessive on account of restricted right of way and the necessity of reconstructing two overhead bridges. A conclusion was that one main track, equipped with remotely-controlled signals and power switches, would provide ample track capacity.

Off the Main Line

In the previous arrangement, there was no place, except the main line, to hold an incoming southbound train that could not be accepted at once by the yard. Also there was no place to move a northbound train out of the yard and hold it if it could not proceed at once onto the main line. To meet these needs, two new crossovers were installed at M.P. 145.5, this layout being placed so that the section of the previous northward main between North Inman and M.P. 145.5, which is 7,318 ft. in length, is long enough to hold the longest freight train. This new track layout at M.P. 145.5 is now the end of double-track main from the north. Now a single-track main extends from crossover No. 16 at M.P. 145.5 to a crossover in Howell interlocking, about 5 mi.

To meet similar needs at the south end, the 4,746 ft. of previous northward main track between Howell interlocking and the crossover at Marietta Bridge was assigned for use as a freight lead. The new crossovers at Marietta Bridge, North Inman and M.P. 145.5 are equipped with dual-control electric switch machines. Controls for these machines and home signals at these locations, as well as controls for train operation by signal indication on the single-track main line between Howell and M.P. 145.5, are all included in a new remote control system with the control machine in the operator's office at Inman yard.

Benefits to Trains

In the new track arrangement with remote control, for example, an outbound northward freight can be pulled out of the yard to the section of the advance track between North Inman and the end of double track at M.P. 145.5. This clears the yard for switching operations. Similarly, if the yard is so congested that an inbound southward freight cannot be accepted at once, it can be held clear of the main track, on this section of running track between North Inman and the end of double track at M.P. 145.5 In the meantime, an outbound northward freight can pull out of the yard via the crossover to the single-track main line at North Inman. The same corresponding operations can be made at the south end of the yard between Marietta Bridge and Howell. Thus, with this increased flexibility, train moves into and out of the yard are being expedited with the new remote controlled single-track arrangement.

The signals on this project are the color-light type, arranged to display standard Signal Section A.A.R. aspects. At the end of double track at M.P. 145.5, the northward high home signal 13R, as shown in Fig. 2, governs from the single-track main via crossover No. 16 to the northward main track on double track. No signal was installed to govern northward from the single track, with crossover 16 normal, to the southbound main track. No such move is to be authorized by signal indication. Similarly, signal 15R governs from the advance track to the northward main track, no signal being provided to govern via crossover No. 14 reversed.

At North Inman, the lower "arm," signal 11R, governs via crossover No. 10 reversed to the single-track main track. With this crossover normal, and the lever thrown to the left, signal 11LA displays yellow and 11LB displays yellow over red, these aspects being lever controlled, without track circuit control. With these aspects displayed, this yard lead can be used by switch engines to move back and forth without the necessity for the leverman to set the levers to clear the signals for each move. When a road train is ready to depart or an incoming freight train is approaching, the lever is placed on center to display the "Stop" aspect on both signals. After the switch engine clears this track and time locking is re-

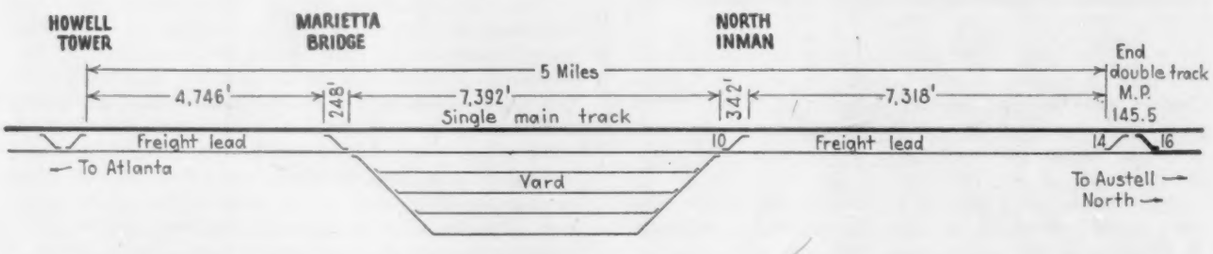


Fig. 1—Track plan between Howell and M.P. 145.5

Track With Remote Control

At Atlanta, Ga., the Southern gains a yard track and aids train operations by making track changes and adding signaling

Above left—View looking south showing crossover No. 16 at the end of double track at M.P. 145.5. Right—Southbound train passing signal 13L at the end of double track

leased, the crossover can be reversed for a movement to the main track. A similar arrangement applies to control of signals 7RB, 7L and 7RA, at Marietta Bridge.

When a freight train is approaching, an important item is to have it enter the yard without stopping, which would block the lead and the main line. As an aid in such operations, the Southern has installed yard-track indicators at each end of the receiving yard. Each such indicator consists of several light signal units mounted one above each other. These units have clear glass covers; and each has a black numeral. When a train is approaching, the yardmaster sets his control lever to cause the corresponding number to be illuminated in the yard track indicator, designating the track which the train is to enter.

This signaling project was designed and installed by railroad forces under jurisdiction of L. C. Walters, assistant to vice-president—signal and electrical, and H. A. Hudson, signal and electrical superintendent, Lines West. Actual construction was in charge of R. T. Hinds, signal and electrical supervisor, and B. G. Webb, construction supervisor. Major items of signal equipment were furnished by the General Railway Signal Company, insulated wires and cables by the Kerite Company, and batteries by Thomas A. Edison, Inc.

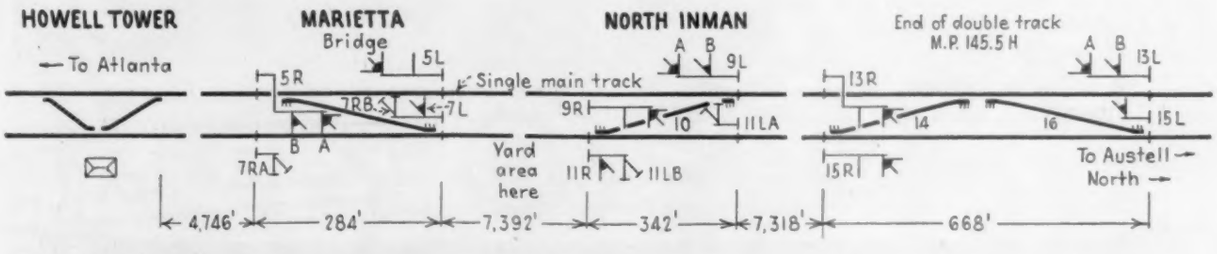


Fig. 2—Signal arrangement between Howell tower and M.P. 145.5

BUY SOUTHERN CHILLED WHEELS WITH

extra strength where it counts

Here's how Southern Chilled Wheels, with their cored hub, sand rim and continuous bracket features, give your railroad its biggest money's worth in safety and strength.

Southern hollows out the wheel's hub, removes unneeded weight from this portion, and places it on the rim where it takes the hard wear and the pounding of contact with rails, frogs and crossings, mile after mile. This cored hub gives you a 100% stronger rim, and the continuous brackets give you a 25% stronger flange, without increasing the weight of the wheel. The cutaway view opposite shows these features.

Coring of the hub provides a more uniform action throughout the wheel, and so insures better annealing. This means fewer residual stresses and greater uniformity of strength.

Today, 282,000 Southern cored hub wheels are in service, rolling all types and sizes of freight cars, including 70-ton cars. This wheel becomes A. A. R. standard September 1.

Here are 4 good reasons why <u>your</u> railroad should specify Southern Chilled Wheels:

1. ECONOMY. You *save* with Southern. Currently the 750-lb. wheel costs $6.65 less—$53.20 less per car set—than other types of wheels. On replacement you can obtain two 750-lb. chilled wheels for the cost of one wheel of any other type.

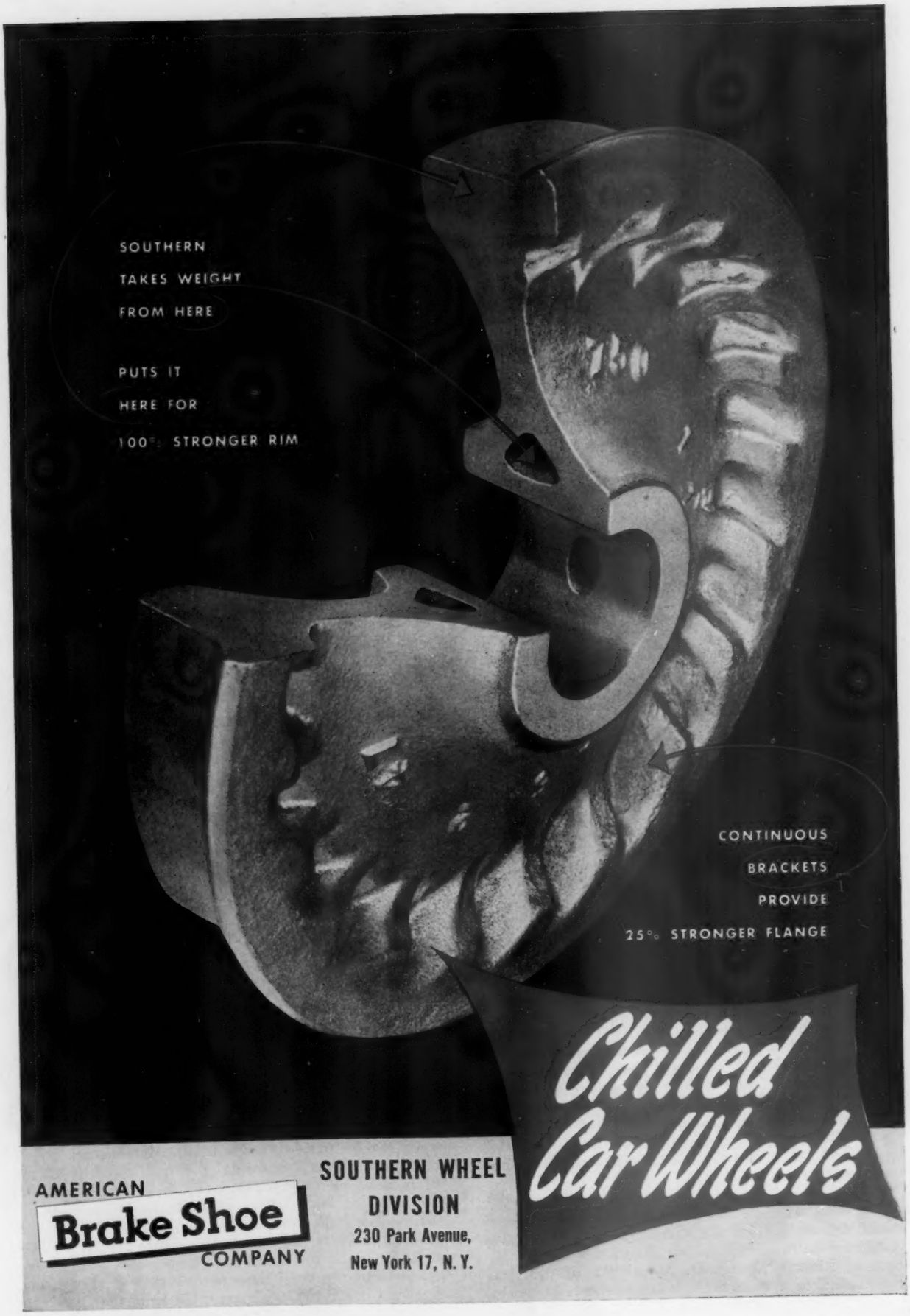
2. OPERATING SAFETY. Tests prove Southern's cored hub wheel gives you a 100% stronger rim and a 25% stronger flange than previous chilled car wheels.

3. AVAILABILITY. Southern Wheel foundries are located at key points to deliver these wheels to you *overnight*. There's no need for large, costly inventories.

4. PROOF IN SERVICE. 282,000 new cored hub Southern Wheels are in service today.

Your road too can save *safely* with Southern Chilled Wheels.
Call or write your Southern Wheel representative.

1850 — 100 years' experience—plus intensive research—brings you a superior product — 1950


SOUTHERN
TAKES WEIGHT
FROM HERE
PUTS IT
HERE FOR
100% STRONGER RIM
CONTINUOUS
BRACKETS
PROVIDE
25% STRONGER FLANGE
Chilled
Car Wheels
AMERICAN
Brake Shoe
COMPANY
SOUTHERN WHEEL
DIVISION
230 Park Avenue,
New York 17, N. Y.

An average of only 91 crossties was renewed per mile of maintained track in the United States in 1949

Tie Renewals Go Lower in 1949

Replacements reported by Class I roads in United States and Canada drop sharply as effect of wood preservative treatment is realized

Continuing a four-year trend, the number of tie renewals reported by Class I railroads in the United States and Canada for the year 1949 was again less than the renewals of the preceding year, and this time the number of such renewals was the lowest for any year since such figures first became available in 1917. Tie renewals for 1949 amounted to 37,301,911 ties, as compared with 43,692,043 ties in 1948, a decrease of 14.6 per cent. Only the fact that renewals on Canadian roads showed an increase of 2.4 per cent prevented the reduction percentage from being even greater. The tie-renewal total for 1949 for the United States and Canada includes 2,164,660 untreated ties, 34,901,841 treated ties and 235,410 secondhand and other ties.

These comparisons, and other observations made in this article, are based on the tabulation of crosstie-renewal statistics compiled for the Committee on Ties of the American Railway Engineering Association by the Bureau of Railway Economics, Association of American Railroads, from reports made to the Interstate Commerce Commission by Class I railroads in the United States and large Canadian railroads. Figures were reported by 130 roads (including one reporting for the first time) of which 127 are in the United States and three in Canada. Some of the more significant statistics are reproduced in the table accompanying this article.

Tie Renewals Lowest of Record

As a result of the decrease of tie renewals in 1949, as compared with the previous year, the number of new wood crosstie renewals per mile of maintained track for roads in the United States dropped from 111 in 1948 to 91 in 1949, the latter figure being the lowest on record. The previous low of 105 crosstie renewals per mile of maintained track was reached in 1933. For roads in Canada, however, the comparable figure rose from 141 to 144. Of the 130 roads reporting, 39 showed an increase in tie renewals; these were, for the most part, the smaller Class I roads, although the Erie, the Denver &

Statistics of Crosstie Renewals on Leading Railroads in the United States and Canada for the Calendar Year Ending December 31, 1949

Road	Miles of maintained track occupied by crossties	Total number of new wood crossties laid in replacement in 1949	Number of wood crosstie renewals per mile of maintained track		Per cent of wood crosstie renewals to all ties in track		Average cost of new wood ties treated	Estimated total crossties in all maintained tracks	Cost of new wood cross-tie renewals per mile of maintained track	Cost of new wood crosstie renewals per thousand equated gross ton-miles (cents)
			1949	5-year average	1949	5-year average				
NEW ENGLAND REGION:										
Bangor & Aroostook	830.79	185,272	223	177	7.8	6.2	$2.86	2,389,331	$359	17.04
Boston & Maine	2,801.75	137,395	49	62	1.7	1.8	3.18	8,265,162	156	2.94
Canadian Nat. Lines in New Eng.	233.62	18,136	78	102	2.5	3.2	2.28	740,150	175	7.92
Canadian Pacific (lines in Me.)	216.23	21,696	100	94	3.5	3.1	2.50	628,039	244	2.78
Canadian Pacific (lines in Vt.)	121.69	7,009	58	72	1.9	2.4	2.26	377,163	128	2.48
Central Vermont	494.77	24,103	49	42	1.6	1.4	3.02	1,465,167	147	3.43
Maine Central	1,188.62	128,635	108	115	3.6	3.8	3.84	3,555,725	306	8.90
New York Connecting	25.90	2,398	93	101	2.9	3.2	3.98	81,641	369	3.00
New York, New Haven & Hartford	3,681.63	163,567	44	77	1.4	2.5	3.28	11,509,257	146	2.53
Rutland	485.77	27,590	57	46	1.8	1.4	3.03	1,510,400	172	6.05
Total	10,080.77	715,801	71	80	2.3	2.6	3.22	30,522,035	190	3.92
GREAT LAKES REGION:										
Ann Arbor	402.24	47,752	119	105	3.9	3.4	3.09	1,220,893	366	9.28
Cambria & Indiana	56.54	1,556	28	86	1.0	3.0	3.17	163,032	87	5.41
Delaware & Hudson	1,353.59	155,566	115	121	3.6	3.8	3.25	4,269,344	373	4.14
Delaware, Lackawanna & Western	2,163.35	196,860	91	85	3.0	2.9	3.44	6,555,787	313	4.37
Detroit & Mackinac	274.48	37,319	136	125	4.5	4.1	2.34	828,973	284	28.40
Detroit & Toledo Shore Line	149.65	9,053	60	60	2.0	2.0	3.19	451,562	193	4.05
Erie	4,705.01	373,900	79	70	2.7	2.4	3.26	13,869,564	259	3.40
Grand Trunk Western	1,854.06	191,269	103	123	3.3	3.9	2.68	5,875,931	276	5.51
Lehigh & Hudson River	111.64	6,062	54	89	2.0	3.3	3.78	300,060	204	3.41
Lehigh & New England	242.39	26,854	111	80	3.7	2.7	3.20	733,423	354	10.84
Lehigh Valley	2,564.30	221,104	86	88	2.9	3.0	3.27	7,664,297	282	5.41
Monongahela	240.15	10,994	46	76	1.6	2.6	3.35	699,590	154	3.60
Montour	72.54	4,907	68	69	2.3	2.4	3.91	208,922	264	8.41
New York Central	21,040.65	1,219,194	58	90	2.0	2.9	3.27	60,975,754	190	2.43
New York, Chi. & St.L. (Inc. W&LE)	3,398.96	398,337	117	125	3.8	4.0	3.01	10,579,687	353	4.33
New York, Ontario & Western	684.79	.....	....	....	....	....	....	1,954,510	....	....
New York, Susquehanna & Western	212.62	14,460	68	46	2.3	1.6	3.36	617,621	228	13.63
Pittsburgh & Lake Erie	810.77	86,533	107	103	3.5	3.4	3.18	2,480,502	340	6.83
Pittsburg & Shawmut	116.35	12,323	106	164	3.7	5.8	3.15	330,608	333	12.97
Pittsburgh & West Virginia	181.36	14,170	78	87	2.6	2.9	3.54	550,999	276	5.58
Wabash	3,178.19	299,986	94	101	3.0	3.2	2.98	9,899,525	281	3.82
Total	43,813.63	3,328,199	76	92	2.6	3.0	3.18	130,230,584	241	3.37
CENTRAL EASTERN REGION:										
Akron, Canton & Youngstown	220.00	33,010	150	200	5.1	6.8	....	648,878	424	15.35
Baltimore & Ohio	10,391.92	461,237	44	103	1.6	3.6	2.60	29,601,767	115	1.40
Bessemer & Lake Erie	486.56	13,473	28	29	0.9	0.9	3.93	1,513,963	109	1.34
Central R. R. of New Jersey	910.38	59,785	66	91	2.3	3.2	3.06	2,559,402	201	3.77
Central R. R. of Pennsylvania	467.26	35,884	77	*	2.7	*	3.59	1,313,678	275	4.33
Chicago & Eastern Illinois	1,314.98	61,489	47	90	1.5	2.9	2.87	4,001,905	134	2.84
Chicago & Illinois Midland	166.00	16,323	98	151	3.3	5.1	3.33	501,448	327	4.54
Chicago, Ind'polis & Louisville	729.29	102,709	141	111	4.5	3.6	2.69	2,263,822	378	7.75
Detroit, Toledo & Ironton	596.95	61,395	103	72	3.6	2.5	2.75	1,719,216	250	7.33
Elgin, Joliet & Eastern	845.02	59,125	70	80	2.3	2.6	2.82	2,613,084	197	5.26
Illinois Terminal	634.25	57,929	91	85	3.0	2.8	2.48	1,902,750	225	12.80
Long Island	782.91	67,826	87	110	3.0	3.9	3.93	2,249,109	340	5.82
Missouri-Illinois	215.86	37,294	173	204	3.5	6.5	2.28	676,924	392	23.09
Pennsylvania	21,412.16	1,842,086	86	95	3.0	3.3	3.15	61,193,170	271	3.03
Penna.-Reading Seashore Lines	617.34	47,640	77	94	2.8	3.4	3.65	1,678,015	282	10.53
Reading Co.	2,792.84	180,656	65	108	2.3	3.9	3.34	7,793,151	216	3.50
Staten Island Rapid Transit	93.19	5,877	63	75	2.5	3.0	3.43	238,560	217	14.31
Western Maryland	1,163.37	71,016	61	68	2.1	2.4	3.14	3,375,105	191	2.91
Total	43,840.28	3,214,754	73	97	2.6	3.4	3.06	125,843,947	224	2.89
POCAHONTAS REGION:										
Atlantic & Danville	220.91	4,365	20	**	0.7	**	2.76	664,550	45	10.88
Chesapeake & Ohio	7,942.50	608,073	77	92	2.5	3.0	2.92	24,115,918	224	2.51
Norfolk & Western	4,330.11	539,630	125	105	4.0	3.4	2.81	13,423,341	351	3.61
Richmond, Fred. & Potomac	410.95	17,968	44	91	1.5	3.1	2.97	1,201,600	130	.94
Virginian	938.35	113,594	121	102	3.9	3.3	2.56	2,883,451	310	3.91
Total	13,842.82	1,283,630	93	97	3.0	3.1	2.85	42,288,860	264	2.90
SOUTHERN REGION:										
Alabama Great Southern	546.46	96,625	177	206	5.8	6.8	3.22	1,657,837	569	7.48
Atlanta & St. Andrews Bay	113.30	16,498	146	***	4.8	***	3.02	341,344	440	12.40
Atlanta & West Point	146.37	22,366	153	186	5.1	6.1	2.89	437,542	441	7.21
Atlantic Coast Line	7,348.55	1,036,167	141	232	4.6	7.7	2.72	22,339,592	377	7.59
Central of Georgia	2,134.35	295,527	138	143	4.4	4.9	2.45	6,693,531	339	7.54
Charleston & Western Carolina	426.87	66,872	157	196	5.4	6.8	2.99	1,233,527	468	18.84
Cin., New Orleans & Tex. Pac.	768.06	136,381	178	117	6.0	4.0	3.21	2,272,369	570	4.86
Clinchfield	419.54	119,015	284	209	9.3	6.9	2.83	1,275,405	693	7.51
Columbus & Greenville	204.59	33,448	163	171	5.2	5.4	2.24	648,141	366	30.87
Florida East Coast	1,151.09	156,610	136	159	4.7	5.5	2.99	3,348,464	389	7.18
Georgia	440.57	56,596	128	140	4.2	4.6	2.72	1,338,439	349	8.25
Georgia & Florida	460.81	102,639	223	219	8.2	8.1	....	1,244,187	331	23.45
Georgia Southern & Florida	466.58	95,407	204	192	6.5	6.1	3.10	1,468,108	463	10.82
Gulf, Mobile & Ohio	3,742.30	505,510	135	204	4.3	6.7	2.56	11,642,534	344	7.85
Illinois Central	9,808.47	1,540,987	157	192	5.2	6.3	2.67	29,901,100	420	6.85
Louisville & Nashville	6,753.63	701,469	104	126	3.6	4.4	2.63	19,332,595	273	4.05
Mississippi Central	173.87	29,163	168	143	5.3	4.5	1.84	552,225	308	16.75
Nashville, Chatt. & St. Louis	1,447.12	142,993	99	112	3.6	4.1	2.51	3,959,320	248	4.52
New Orleans & Northeastern	289.06	57,126	198	229	6.7	8.0	3.34	850,991	661	7.90
Norfolk Southern	821.21	165,302	201	231	6.9	7.9	2.72	2,401,000	409	21.55

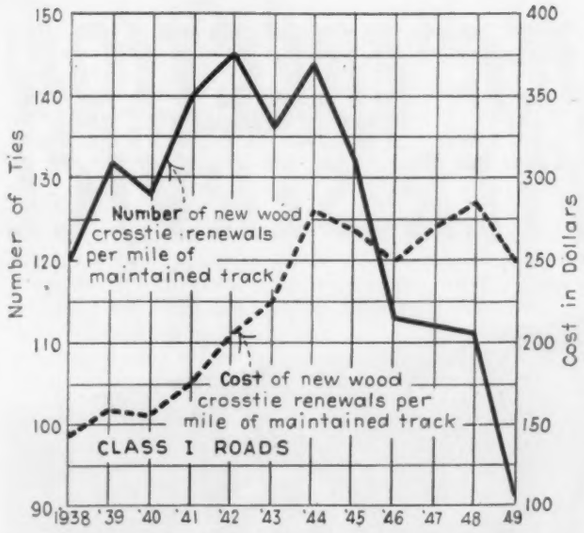
Footnote references appear on page 40.

(Table continued on page 40)

Statistics of Crosstie Renewals on Leading Railroads in the United States and Canada for the Calendar Year Ending December 31, 1949 (Continued)

Road	Miles of maintained track occupied by crossties	Total number of new wood crossties laid in replacement in 1949	Number of wood crosstie renewals per mile of maintained track		Per cent of wood crosstie renewals to all ties in track		Average cost of new wood ties treated	Estimated total crossties in all maintained tracks	Cost of new wood cross-tie renewals per mile of maintained track	Cost of new wood crosstie renewals per thousand equated gross ton-miles (cents)
			1949	5-year average	1949	5-year average				
SOUTHERN REGION *(Continued)*										
Seaboard Air Line	5,367.38	865,104	161	172	5.3	5.7	2.65	16,229,275	427	6.87
Southern Ry.	8,319.85	738,451	89	122	2.9	4.0	3.04	25,783,961	268	4.45
Tennessee Central	342.65	41,030	120	141	4.0	4.7	2.25	1,037,544	194	9.33
Western Ry. of Alabama	188.14	23,851	127	161	4.2	5.3	2.90	563,871	367	6.87
Total	51,880.82	7,045,137	136	170	4.5	5.7	2.72	156,552,902	361	6.29
NORTHWESTERN REGION:										
Chicago & North Western	11,173.50	817,405	73	111	2.5	3.7	2.54	33,148,825	184	4.53
Chicago Great Western	1,861.71	379,093	204	160	6.9	5.4	3.49	5,531,985	690	14.75
Chicago, Milw., St. Paul & Pacific	13,547.91	871,103	64	115	2.1	3.7	2.77	41,892,407	169	3.75
Chicago, St. P., Minn. & Omaha	2,149.84	171,700	80	113	2.7	3.8	2.86	6,374,281	228	6.34
Duluth, Missabe & Iron Range	1,081.26	102,112	94	70	3.2	2.4	2.58	3,221,065	243	4.07
Duluth, South Shore & Atlantic	538.99	87,438	162	148	5.4	4.9	2.71	1,610,257	408	16.79
Duluth, Winnipeg & Pacific	206.00	45,762	222	276	7.5	9.4	2.38	607,564	513	12.97
Great Northern	10,259.24	1,209,808	118	122	3.8	3.9	2.68	31,657,577	314	5.94
Green Bay & Western	273.40	32,914	120	148	4.2	4.9	3.39	792,374	375	17.40
Lake Superior & Ishpeming	236.18	12,441	137	156	4.6	5.2	3.14	708,540	284	39.99
Minneapolis & St. Louis	1 559.00	305,240	196	158	6.5	5.3	2.73	4,696,788	476	18.96
Minn., St. Paul & S. S. Marie	4,799.67	464,284	97	103	3.2	3.4	2.45	14,490,387	234	7.22
Northern Pacific	9,242.94	571,277	62	70	2.1	2.4	2.48	26,831,146	153	3.35
Spokane International	176.78	54,866	310	312	10.7	10.7	2.00	514,787	481	25.30
Spokane, Portland & Seattle	1,139.56	86,419	76	142	2.5	4.6	2.70	3,512,861	200	3.69
Total	58,245.98	5,231,862	90	111	3.0	3.7	2.69	175,590,844	235	5.38
CENTRAL WESTERN REGION:										
Arthison, Topeka & Santa Fe	19,337.04	1,346,716	70	85	2.2	2.8	2.65	61,743,169	185	2.44
Chicago, Burlington & Quincy	11,866.87	755,433	64	103	2.1	3.3	2.60	36,644,895	166	3.19
Chicago, Rock Island & Pacific	9,594.83	810,602	84	103	2.8	3.4	2.35	28,637,859	199	3.73
Colorado & Southern	822.36	55,860	68	91	2.3	3.0	2.96	2,463,922	201	4.52
Colorado & Wyoming	105.73	4,257	40	40	1.4	1.4	3.14	312,904	127	42.48
Denver & Rio Grande Western	3,404.33	191,667	56	42	1.8	1.4	3.46	10,609,000	195	3.64
Fort Worth & Denver City	1,036.28	75,985	73	113	2.5	3.8	2.77	3,084,199	203	4.97
Northwestern Pacific	422.68	78,253	185	163	6.4	5.6	2.63	1,221,569	473	13.14
Sacramento Northern	313.86	35,276	112	****	3.7	****	2.66	947,507	279	75.91
Southern Pacific Co.—Pac. Lines	11,801.51	888,400	75	96	2.4	3.1	2.75	36,467,092	207	2.08
Toledo, Peoria & Western	278.28	10,439	38	a	1.2	a	2.37	881,591	89	3.10
Union Pacific	13,160.26	841,767	64	80	2.3	2.8	2.72	37,180,733	174	1.82
Utah	71.31	9,925	139	121	5.0	4.3	3.80	200,394	402	7.69
Western Pacific	1,537.46	319,635	208	230	7.0	7.7	3.15	4,574,207	593	7.90
Total	73,752.80	5,426,215	74	93	2.4	3.1	2.68	224,969,041	196	2.67
SOUTHWESTERN REGION:										
Beaumont, Sour Lake & Western	109.37	20,507	188	182	4.8	5.8	2.85	428,200	533	3.86
Burlington-Rock Island	179.37	13,958	78	121	2.5	3.9	2.82	561,428	220	3.60
International-Great Northern	1,421.89	176,877	124	133	4.2	4.4	2.83	4,261,400	352	6.22
Kansas City Southern	1,287.80	71,623	56	66	1.8	2.1	2.65	4,076,265	148	1.85
Kansas, Oklahoma & Gulf	352.40	36,047	102	68	3.4	2.3	2.67	1,046,698	274	6.57
Louisiana & Arkansas	882.49	39,488	45	75	1.4	2.3	2.35	2,873,331	105	2.33
Midland Valley	355.12	28,081	79	63	2.7	2.2	2.52	1,051,154	199	15.86
Missouri-Kansas-Texas Lines	3,916.16	307,931	79	106	2.5	3.4	2.72	12,308,900	214	4.25
Missouri Pacific	8,853.10	905,016	102	125	3.3	4.0	2.41	27,305,624	246	4.52
New Orleans, Texas & Mexico	227.79	32,883	144	138	4.7	4.5	2.84	696,800	410	6.22
Oklahoma City-Ada-Atoka	136.89	26,461	193	212	6.7	7.4	2.40	394,243	465	64.48
St. Louis, Brownsville & Mexico	776.19	81,244	105	137	3.5	4.5	2.81	2,348,000	294	6 92
St. Louis-San Francisco	6,232.57	792,177	127	119	4.0	3.8	2.35	19,631,881	299	6.40
St. Louis, San Fran. & Texas	150.97	17,876	118	109	3.8	3.5	2.40	472,899	284	5.73
St. Louis Southwestern Lines	1,861.97	265,927	143	169	4.6	5.4	2.64	5,753,434	377	4.93
San Antonio, Uvalde & Gulf	355.48	38,242	108	118	3.7	4.1	2.50	1,025,200	269	13.36
Texas & New Orleans	5,558.45	601,233	108	114	3.9	4.1	2.51	15,337,126	271	4.88
Texas & Northern	10.76	1,337	124	b	3.1	b	1.75	42,986	217	7.97
Texas & Pacific	2,254.27	329,680	146	172	5.0	5.9	2.69	6,591,550	394	5.33
Texas Mexican	232.28	17,450	75	109	2.4	3.4	2.39	736,035	178	17 55
Total	35,155.32	3,804,038	108	122	3.6	4.0	2.52	106,943,154	273	4.99
Grand Total—United States	330,612.42	30,049,636	91	112	3.0	3.7	2.79	992,941,367	249	3.90
CANADIAN ROADS:										
Canadian National	26,902.00	3,811,394	142	147	4.8	5.0	2.26	78,767,255	295	c
Canadian Pacific	21,089.00	3,016,133	143	146	5.0	5.1	2.35	60,714,534	329	6.92
Ontario Northland	693.60	189,338	273	222	9.6	7.6	2.85	1,970,550	524	23.74

†These are storekeepers' average costs for the ties charged out and used. They are not actual costs or the prices paid for ties purchased during the period.
*The Central of Pennsylvania commenced operations in August, 1946; formerly part of the Central of New Jersey.
**The Atlantic & Danville became a Class I railroad August 1, 1949; figures shown for 1949 are for the last five months of year.
***The Atlanta & St. Andrews Bay became a Class I railroad January 1, 1947; formerly a Class II road.
****The Sacramento Northern became a Class I railroad January 1, 1948; formerly a Class I electric road.
a The Toledo, Peoria & Western made no report in 1945 and 1946.
b The Texas & Northern became a Class I railroad November 30, 1948.



A drop in 1949 of approximately 18 per cent in the number of crosstie renewals per mile of maintained track in the United States caused a 13 per cent drop in the cost per mile, even though there was an advance of 6 per cent in the average price of a treated crosstie

Rio Grande Western, the St. Louis-San Francisco, the Union Pacific and the Canadian National were within this group.

Road and Regional Figures

The roads that stand out as having made the largest decreases in tie renewals per mile of maintained track are as follows: Pittsburg & Shawmut (223 to 106); Texas Mexican (165 to 75); Missouri-Illinois (261 to 173); Chicago & Illinois Midland (180 to 98); Sacramento Northern (180 to 112); Atlantic Coast Line (207 to 141); Baltimore & Ohio (106 to 44); Missouri Pacific (164 to 102); Burlington-Rock Island (138 to 78); Long Island (139 to 87); and the Reading (116 to 65).

Four roads inserted the same number of ties per mile as in the previous year. These are the Central Vermont (49), the Virginian (121), the Southern Pacific (75), and the Western Pacific (208).

Statistics by regions in the United States show that in each region there was a reduction in total tie renewals per mile of maintained track in 1949 as compared with 1948. The decreases by regions are as follows: New England (88 to 71); Great Lakes (97 to 76); Central Eastern (101 to 73); Pocahontas (107 to 93); Southern (164 to 136); Northwestern (110 to 90); Central Western (81 to 74); and Southwestern (130 to 108).

Larger Treated-Tie Percentage

During 1949, 75 roads in the United States and Canada reported using treated ties exclusively in making tie renewals. The number of roads in this category in the previous nine years was 72 for 1948, 66 for 1947, 63 for 1946, 56 for 1945, 54 for 1944, 45 for 1943, 49 for both 1942 and 1941, and 47 for 1940. Only two roads reported not using any treated ties at all. Of the roads using both treated and untreated ties, only nine (one of these being in Canada) reported using more untreated than treated ties.

Of the 34,901,841 treated wood ties inserted in track in 1949, 28,876,066 ties were placed in the United States and 6,025,775 were installed in Canada. The 1949 figure for the United States represents a reduction of 6,147,686 ties, or 17.6 per cent, as compared with renewals of the previous year, while the Canadian figure is an increase of 755,812, or 14.3 per cent, as compared with 1948 renewals.

The ratio that treated wood ties bears to the total ties renewed in the United States rose to a new high of 95.3 per cent in 1949, as compared to 95.1 per cent for 1948, 94.7 per cent for 1947, 94.3 per cent for 1946, 94.0 per cent for 1945, 93.4 per cent for 1944, 91 per cent for 1943, and 89 per cent for 1942. For Canada, the comparable ratio rose from 76.9 in 1948 to 85.9 in 1949.

Average Cost Per Tie Higher

An accompanying chart shows both number and cost of new wood crosstie renewals per-mile of maintained track in the United States. It is interesting to note that, although the total number of tie renewals decreased slightly from 1946 to 1948, the cost of the renewals per mile rose during this period. The sharp drop in the number renewed in 1949, however, was great enough to overcome the higher average cost of the treated ties ($2.79 in 1949 as contrasted with $2.63 for 1948), causing the cost of renewals per mile to drop from $286 to $249.

The statistics shown in the accompanying table cover a total of 330,612.42 mi. of maintained track in the United States and 48,684.60 mi. in Canada, as compared with 330,811.99 mi. and 48,608.70 mi., respectively, in 1948.

Indicative of the railroads' constant emphasis on safety, this two-color poster, typical of those distributed by the Safety Section of the Association of American Railroads, emphasizes the railroads' 1949 safety record and urges still greater effort for 1950

You'll get SPEEDIER ERECTION ...BETTER SERVICE

with

Amcreco Creosoted

FRAMED BRIDGE TIMBERS

Adzed and Bored Cross Ties

Bridge Ties

Piles

Timbers

You benefit two ways when you use Amcreco Framed Bridge Timbers—preframing speeds building and saves labor... Amcreco Creosoting Methods assure long life and low maintenance. Long experience in supplying a wide variety of creosoted products for the nation's railroads eminently qualifies Amcreco as a reliable source. Amcreco's engineers are always at your service to aid in solving trestle problems as well as any problem related to the application of creosoted products. Plan now to take advantage of this helpful service. There is no obligation of course.

AMERICAN CREOSOTING COMPANY
INCORPORATED

COLONIAL CREOSOTING COMPANY INCORPORATED

AMCREO LOWRY PROCESS CREOSOTED WOOD

GEORGIA CREOSOTING COMPANY INCORPORATED

LOUISVILLE, KENTUCKY

AMCRECO Lowry Process CREOSOTED PRODUCTS

Pressure treated for strength that lasts!

B. A. Dollens Heads Electro-Motive Division

Cyrus Osborn assumes charge of G.M.'s engines divisions at Detroit

Six Diesel-electric locomotive units a day regularly roll off the assembly line of the Electro-Motive Division of General Motors Corporation's sparkling, modern plant at LaGrange, Illinois. This high capacity "locomotive factory," wherein mass production techniques were first applied to motive power building, is now under the supervision of B. A. Dollens, the plant's former assistant general manager. Mr. Dollens succeeds Cyrus R. Osborn who, as general manager of Electro-Motive and a vice-president of the parent G. M., has headed the locomotive-building organization since 1943. Mr. Osborn has been placed at the head of G. M.'s general engines divisions at Detroit, Mich., succeeding Ronald K. Evans, who has been elected executive vice-president of G. M. Mr. Dollens, in addition to assuming the title of general manager at Electro-Motive, was recently elected a vice-president of General Motors.

Actually Electro-Motive produces no less than nine locomotive units each working day. Of this total three are the product of E.M.D.'s Plant No. 3 at Cleveland, Ohio, whence come all of the division's switching and "general purpose" Diesels. In an exclusive interview, Mr. Dollens told *Railway Age* that the demand for the latter type of power exceeded the capacity of the Cleveland plant, and that additional production of "G.P.s" will be undertaken at LaGrange very shortly.

Seventy-Seven Acres Under Roof

At present, Mr. Dollens said, there are 77 acres under roof at LaGrange, more than ten times the acreage covered by the original unit of the plant when it was completed in 1935. "Actually," he continued, "there has never been a day since ground was first broken that building contractors have not been at work somewhere on the grounds." In proof of his statement, a loaded contractor's truck stood nearby.

C. R. Osborn

B. A. Dollens

To produce nine Diesel locomotive units in a single day requires the combined talent and know-how of 14,500 employees, Mr. Dollens explained. Of this total, 10,000 commute to the LaGrange plant chiefly from 18 nearby suburban communities, including LaGrange itself. An additional 3,000 are employed in E.M.D.'s Plant No. 2 on Chicago's south side, from which come various components of the current F-7 freight and E-8 passenger models for final assembly at LaGrange. The Cleveland plant, he said, requires 1,500 workers.

Because of relative isolation from "big city" life—the

The La Grange plant in 1935

**In 1950—
and still growing**

LaGrange plant being about 14 miles from downtown Chicago—employees have unusually varied recreational facilities at their disposal. Among other activities to which the plant currently devotes space are a photographic club and a model railroad club. In the plant's huge cafeteria, which seats 2,200 persons, there is a stage from which continuous mealtime entertainment originates, largely with employee talent. Mr. Dollens and his staff are particularly proud of the unity these activities have welded within so large an organization.

Research Lowers Costs

Constant research on every phase of the current manufacturing processes and on all materials used, as well as on products for the future, has enabled Electro-Motive to develop many cost-saving methods which are of ultimate benefit to the railroads. Mr. Dollens pointed, for example, to the lack of the usual materials inventories, saying that the entire production of locomotives is based on a carefully timed flow of just enough materials to fulfill net production requirements. The result of extensive production research, this system, he said, means less space tied up in materials storage and more space for actual production.

Although Mr. Dollens has been with Electro-Motive only since 1946, he has spent a lifetime within the Generals Motors organization. Born in Elnora, Ind., on December 10, 1901, he was educated in Indiana schools and graduated from Purdue University with the degree of mechanical engineer in 1925. He then went to Anderson, Ind., and joined the Delco-Remy organization and rose through various positions to the post of general superintendent of manufacturing. He was promoted to manager of foundry and battery operations of G.M. in 1943 and two years later became general manager of the Saginaw Malleable Iron division with plants at Saginaw, Mich., and Danville, Ill. The following year he joined Electro-Motive as assistant general manager.

Like his successor, Cyrus R. Osborn has spent his entire career within the General Motors organization. Nevertheless he has a notably wide acquaintanceship among railroad men.

Born in Dayton, Ohio, on August 27, 1897, he received his early education in Dayton public schools and graduated from the University of Cincinnati with a degree in mechanical engineering in 1921. He also holds an honorary degree of doctor of science from his alma mater.

The Dayton Engineering Laboratories Company, a G.M. unit, was the scene of his first employment in July, 1921. A few months later he became a field service engineer. In December, 1923, he became technical manager of Overseas Motors Service Corporation (another G.M. unit) and in September, 1925, was named general manager of that organization. From 1921 until 1932 he served as general manufacturing manager of G.M. export division. In May of the same year he went to Stockholm, Sweden, as managing director of General Motors Nordiska, remaining there until 1934, after which he served on special assignments in Mexico and England.

Early in 1935, Mr. Osborn was placed in charge of engineering for the Overseas division and a year later was made assistant to the general manager. In 1936 he was sent on special assignment to Adam Opel A. G. in Russelheim, Germany, and in July of the same year became special assistant to the general manager there. He was appointed general manager of the Opel operation on July 1, 1937.

In June, 1940, he returned to this country and became active in defense material work at the central office in Detroit. In 1941 he was appointed special assistant to R. K. Evans, then vice-president of G.M. in charge of the Engine Divisions group. He served for a short period in 1943 as general manager of the Allison division, being elected a vice-president of the corporation and appointed general manager of Electro-Motive on August 2, 1943.

No Electro-Motive Museum—Yet

Mr. Dollens was asked by *Railway Age* whether some of the early products of Electro-Motive, harbingers of the Diesel era in railroading, would be brought to LaGrange as historic relics. Specific reference was made to one of the company's first products, the little "B-3" rail motor car delivered to the Northern Pacific in 1924.

"That question has been asked us many times," Mr. Dollens replied, "and we have considered it. The one big drawback to such a plan is that none of those early units have been retired as yet."

GENERAL NEWS

Improved Performance In Freight Service Is Seen By I.C.C. Bureau

"Monthly Comment" also discusses equipment, motor carrier revenues and ton-miles and railroad returns

A number of "significant operating averages," reflecting improvements in freight train performance for 1950, were presented in the latest issue of the "Monthly Comment," publication of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics.

The operating averages, which were termed "efficiency indicators," showed that in cars per train, net tons and gross tons per train, gross ton-miles per train-hour, and train speed the first five months of 1950 were better than the same period of either 1949 or the peak war year of 1944.

Other articles in this issue of the "Comment" included one on rail and motor carrier transportation equipment, and another on the increased traffic and revenue of motor carriers of property. The first of these articles included figures on Diesel-electric locomotive and freight car installations, as well as the sale of motor trucks, for the first half of 1950.

The I.C.C. bureau also presented in the "Comment" articles on ton-miles and passenger-miles of Class I, II, and III motor carriers for 1949, railroad financial results for the first six months of 1950, and an analysis of first-quarter returns of a large group of freight forwarders.

Many Marked Improvements

An accompanying table, reproduced from the "Comment," is from the article on freight service operating efficiency. Comparing operating averages of Class I roads for the first five months of five selected years, the table points up a number of marked improvements in operating efficiency in 1950, particularly over prewar years.

The table also indicates, however, that in three "important indicators of equipment utilization"—car-miles per freight car day, net ton-miles per freight car day, and net ton-miles per loaded car-mile (average load)—1950 was less favorable than 1949.

Further information on freight service equipment is provided in the table under the heading "per cent unserviceable." While 1950 is seen as an improvement over 1939 in this category, the percentages reflect the rise in unserviceable locomotives and freight cars since the early part of 1949.

Freight traffic density for the first five months of 1950, as calculated from the table, was 5.4 per cent below 1949, but the I.C.C. bureau said this was because of a decline in freight traffic volume. The 1950 "average density" still exceeded that of 1939 by 79 per cent and was 24 per cent above that of 1929.

The "Comment" article on transportation equipment reported that 15.8 per cent more Diesel-electric locomotives were installed in the first half of 1950 than in the same 1949 period. Meanwhile, the installation of steam locomotives decreased 87.8 per cent, and the article noted that "the installation of steam and electric locomotives appears to be approaching the zero point." As to freight cars installed, the number decreased from 55,158 for the first half of 1949 to 12,795 for the first half of 1950.

Sales of motor trucks in the first six months of 1950 averaged 9.6 per cent greater than in the same period of 1949, with by far the greatest increases being in the heavy-duty classes. The sale of trucks in the gross weight class of from 19,501 pounds to 26,000 pounds increased 69.7 per cent in the 1950 period. Sale of those over the 26,000-pound class increased 63.9 per cent.

Turning next to a discussion of motor freight transportation, the I.C.C. bureau summarized first-quarter 1950 returns of 1,578 Class I intercity motor carriers. Compared with 1949, these returns showed an increase of 17.8 per cent in tonnage transported, a 21.2 per cent increase in truck and tractor miles operated, and a 20.9 per cent increase in operating revenues.

The 17.8 per cent increase in freight tonnage transported by these motor carriers may be compared with the 11.7 per cent decrease in tons of revenue freight carried by Class I railroads between the same periods.

Between the two periods the net income after income taxes of the motor carriers increased 58 per cent. At the same time, because of a smaller increase in total expenses than in operating revenues, the carriers' operating ratio dropped from 94.9 per cent in 1949 to 93.2 per cent in 1950.

Another article in the "Comment" gave preliminary estimates of 1949 ton-miles and passenger-miles for Class I, II, and III motor carriers. The ton-mile estimates, while not including local carriers, indicate that in the year 1949 common and contract motor carriers reached a new high of 50.141 billion intercity ton-miles.

"With the exception of part of the period of war shortages," the "Comment" said, "the ton-miles of intercity carriers have had a long-range continuous increase."

Truck Ton-Mileage

Compared on an index basis, with 1939 as the base year of 100, the ton-miles of the three classes of intercity motor carriers by the end of 1949 had advanced 155.1 percentage points. At the end of the same period, revenue ton-miles of Class I line-haul railways had declined from their wartime peak and were only 57.9 percentage points above 1939. In both 1948 and 1949 the ton-mile index of the motor carriers was higher in relation to 1939 than was the similar railroad index.

This relatively greater share by mo-

FREIGHT TRAIN SERVICE OPERATING AVERAGES

Item	Five months ended May 31				
	1950	1949	1944	1939	1929
Net ton-miles per mile of road per day	6,754	7,138	9,477	3,772	5,467
Car-miles per freight car-day	39.5	40.4	49.6	29.2	31.8
Freight car-miles per train-mile:					
Loaded	37.4	35.4	34.1	29.2	29.5
Empty	20.4	20.5	18.3	17.9	17.2
Total	57.8	55.9	52.4	47.1	47.7
Gross ton-miles per train-mile[1]	2,590	2,510	2,378	1,885	1,822
Net ton-miles per train-mile	1,162	1,144	1,122	747	783
Net ton-miles per freight car day	795	826	1,062	464	533
Gross ton-miles of locomotives and tenders per locomotive-mile	298	293	264	251	218
Net ton-miles per loaded car-mile	31.1	32.3	32.9	25.6	26.5
Percent loaded of freight car-miles	64.7	63.3	65.1	62.0	63.2
Train-miles per train hour	17.0	16.8	15.6	16.9	13.1
Gross ton-miles per train hour[1]	43,480	41,707	36,624	31,682	23,827
Percent unserviceable:					
Freight locomotives	20.9	16.3	12.3	31.0	16.8
Freight cars on line	7.1	5.0	2.4	12.0	6.2

[1] Excludes locomotives and tenders.

tor carriers of intercity transportation equaled about 10 per cent of Class I rail revenue ton-miles in 1949, as compared to about 6 per cent in 1939. For this 10 per cent, however, the intercity motor carriers realized revenue equal to about 38 per cent of the rail freight revenue, thus indicating a much greater revenue per ton-mile for motor carriers.

In concluding the railroad-motor carrier comparison as to ton-miles, the "Comment" article pointed out that while Class I railroads account for 99.57 per cent of the rail totals in ton-miles, the Class I, II, and III motor carrier grouping does not include a "very heavy portion" of motor carrier freight traffic. All exempt and private motor carriers, and wholly intrastate for-hire carriers, are omitted, it said. To illustrate, it was stated that the three classes of motor carriers handled only 55.6 per cent of the total intercity ton-miles by highway in 1948.

Motor-Carrier Passenger-Miles

As to passenger-miles of the Class I, II, and III motor carriers, it was noted briefly that there has been a "consistent decline" since the war. These motor passenger-miles in 1949 were about 71 per cent of the Class I railway passenger-miles, but, in contrast to the ton-mile situation, the higher passenger-miles resulted in revenues comparable to only about 51 per cent of the rail passenger revenues.

Railway financial results for the first half of the year, as reported in the "Comment," revealed that operating revenues for the first six months were up 3.3 per cent over 1949 while operating expenses had declined 5.7 per cent.

Net railway operating income was 10.3 per cent above last year, and net income after all charges was up 20.7 per cent. The percentage of revenues converted into net railway operating income after federal income taxes was 8.2 in the 1950 period, as compared with 7.2 in 1949.

On the basis of quarterly returns from 60 large freight forwarders, for the first quarter of 1950, transportation purchased from rail carriers during the period was 3 per cent below 1949, while that purchased from motor carriers and water carriers increased 3.7 and 107.2 per cent, respectively. The rail proportion of total purchased transportation fell from 70.8 per cent in the 1949 period to 68.6 per cent in 1950.

Total operating revenues of the forwarders were up 8.1 per cent over 1949, according to the first quarter returns. Meanwhile, the average charge per 100 pounds of freight declined from $3.37 to $3.28, while the number of shipments increased 7.3 per cent and the number of tons of freight received from shippers was up 5 per cent.

An article in the "Comment" reviewing freight commodity statistics for the first quarter of 1950 showed that tons of freight originated by Class I roads during the period were 12.5 per cent below the corresponding 1949 period. Gross freight revenue was off 7.7 per cent, "despite an increase in freight rates of roughly 4 per cent" and an increase in the average estimated haul per ton from 434 miles in 1949 to 456 miles in 1950.

Wage Dispute Talks End in Stalemate

Unions again ask seizure; B. of R. T. calls token strike

White House efforts to settle the wage, hour and working-rule dispute involving train and yard service employees appeared to have reached a stalemate this week.

W. P. Kennedy, president of the Brotherhood of Railroad Trainmen, and R. O. Hughes, president of the Order of Railway Conductors, withdrew from the negotiations on August 15 and for the second time within ten days asked President Truman to seize the railroads.

The following day Presidential Secretary Charles G. Ross said at a press conference that seizure of the railroads "is not now on the President's mind and he is not thinking of this situation in terms of seizure."

Meanwhile, Mr. Kennedy of the Trainmen had dispatched the following wire to the National Mediation Board:

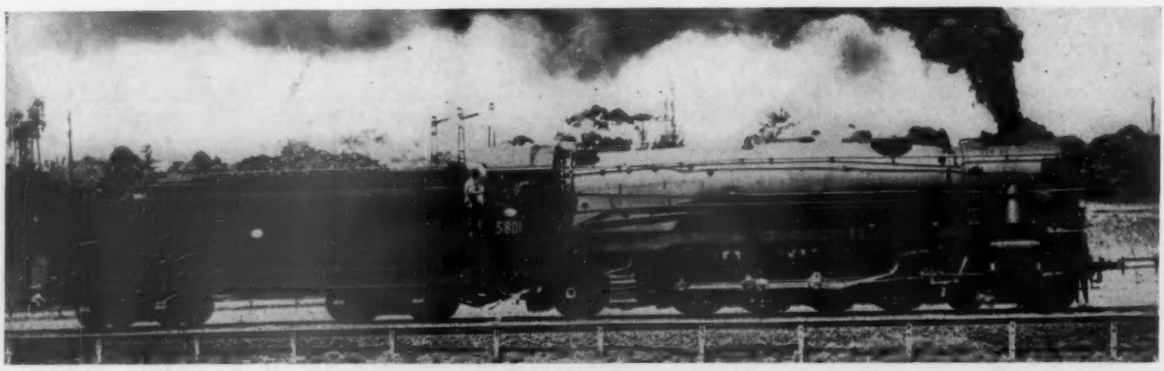
"Have authorized yardmen withdrawn from service in legal strike on Kentucky & Indiana Terminal Railroad, Minnesota Transfer Railway, and River Terminal Railway, 6 a.m. Monday, August 21, for a period of five days up to and including midnight Friday, August 25, as the result of failure to reach settlement on the national rules movement."

The White House had intervened in the case on August 8, when Dr. John R. Steelman, assistant to the President, called in all parties, including the Mediation Board. (See *Railway Age* of August 12, page 62.)

Prior to that time the Mediation Board had been conducting negotiations for several weeks without results. The unions, having turned down emergency board recommendations in the case, have been free to strike under the Railway Labor Act since July 15.

Daily meetings were held with Dr. Steelman through August 15, but no agreement was reached for settling the dispute. According to Mr. Ross, Dr. Steelman "hopes that within the next few days he can find some basis of negotiation on the strength of which he can bring these men back into joint conference."

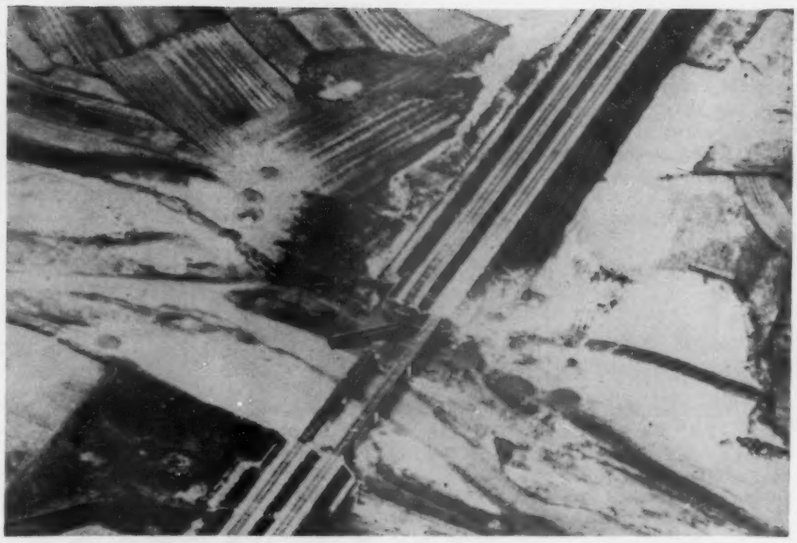
The statement by Mr. Kennedy and Mr. Hughes on August 15 said, in this



TWENTY-FIVE NEW LOCOMOTIVES—the first of which is pictured here—now being built for Australia's New South Wales State Railways are said to be the most powerful ever used in that state; designed to handle 2,000-ton loads in freight service, they are fast enough to haul passenger trains in an emergency. Weight, including tender, is 227 tons; steam pressure 200 lb. per sq. in.; cylinders (3) 21½ in. by 28 in.; grate area, 65 sq. ft., and driving wheels 5 ft. in diameter. Mechanical stokers, superheaters, Walschaert valve gear, and Westinghouse brakes are standard equipment. Tenders carry 14 tons of coal and 9,000 gal. of water

connection, that "there is no point in continuing the White House talks because the railroad presidents have shown no interest in settling this controversy and have not attended the conferences." The railroads have been represented at the meetings by a special negotiating committee.

As to seizure of the railroads, the union leaders said this action on the part of the government "would avert a potential substantial interruption in essential railroad transportation." They also said the railroad representatives "are taking advantage of the international situation and in a defiant, high-handed attitude they invite trouble which inevitably will occur unless this dispute is settled immediately."



MILITARY USAGE was the primary factor in construction of this Korean double-tracked railway line built during the period of Japanese occupation. Note that, despite U. S. Air Force "interdiction bombing," one of the two widely separated bridge spans was still serviceable when this picture was taken

Car Shortages 30,000 Per Day

Corrective steps include big buying and repair programs

A memorandum on the freight car situation was issued by the Association of American Railroads on August 14, revealing that total car shortages are now running about 30,000 per day. With carloadings averaging 140,000 a day, the memorandum noted that shortages are being reported in all types except stock and refrigerator cars.

The memorandum outlined a number of steps that are being taken to meet the situation. From the long range viewpoint, it was pointed out that the railroads are committed to a large car building program, with orders for more than 100,000 cars already either placed or announced.

As to immediate measures, the A.A.R. notice said corrective action is taking the following forms: Roads are stepping up their car repair and rebuilding programs; operating practices are being reviewed — particularly those where the five-day week has meant a loss in car efficiency; supervision is being increased to the end that car delays will be found and corrected; surplus refrigerator and stock cars are being used where practicable for handling commodities ordinarily moved in box cars; and the A.A.R.'s Car Service Division is devoting all its efforts to see that equipment is equitably distributed in all sections of the country.

Factors giving rise to the current car situation were also discussed in the A.A.R. memorandum. Among these have been the increased military movements, increased defense production, and "the almost universal rush on the part of both consumers and industry to buy or stock up against the uncertainties of the future." Other elements contributing to the car shortages were said to be the effects of recent strikes, which disrupted the normal pattern of distribution and return of cars; the five-day week; the effect in some regions of having to move both old grain and the new crop at the same time; and the reduction of approximately 50,000 in the number of serviceable cars available as compared with a year ago.

A resolution calling for an investigation of the "existing shortage" of freight cars was introduced in the Senate on August 15 by Senator Langer, Republican of North Dakota.

Designated as S. Res. 330, the resolution would direct the Senate interstate and foreign commerce committee to make "a full and complete study and investigation" of the causes of the "existing shortage of railroad equipment for transportation purposes." The committee would also study means of relieving such shortages of equipment.

Senator Langer's action in introducing S. Res. 330 was taken following a speech to the Senate in which he denounced the Interstate Commerce Commission for not "seeing to it that there were sufficient railroad cars so that the farmers could move their grain to market." The Senator read letters and a number of editorials from North Dakota and other sections of the Northwest, indicating that the "box car shortage is the worst in years."

Eastern L.C.L. Case Is Discontinued By I.C.C.

An order discontinuing the Official territory l.c.l. case (No. 29770), which dates from June 16, 1947, has been issued by the Interstate Commerce Commission. The commission's action followed a request by the Eastern roads for permission to withdraw their pending petition in the case.

The Eastern roads, in cooperation with shipper groups, recently worked out a "compromise settlement" in a move to end the three-year-old case. This compromise was filed with the I.C.C. and after oral argument was allowed to become effective July 25. (See *Railway Age* of July 15, page 56.)

When the original petition in No. 29770 was filed in 1947, the roads in Official territory were seeking permission to file schedules of increased class rates applicable to l.c.l. and any-quantity freight. The I.C.C. denied this initial petition in October, 1948, but the case was subsequently reopened.

Under the recent compromise agreement it was agreed that the roads could increase to $2 the minimum charge on single shipments, and apply to exception-rated l.c.l. traffic the class rates applicable to classification-rated traffic.

House Group to Study Transport Preparedness

A special subcommittee of the House committee on interstate and foreign commerce has been appointed to "conduct a continuous examination of the preparedness of the industries under the committee's jurisdiction to meet the needs of the present emergency."

The committee chairman, Representative Crosser, Democrat of Ohio, announced on the floor of the House last week that he had appointed the subcommittee. In addition to himself, the chairman said there would be eight other members of the group: Representatives Beckworth, Democrat of Texas; Priest, Democrat of Tennessee; Harris, Democrat of Arkansas; Rogers, Democrat of Florida; Wolverton, Republican of New Jersey; Hinshaw, Republican of California; Leonard W. Hall, Republican of New York; and O'Hara, Republican of Minnesota.

"In designating this special subcommittee," Chairman Crosser said,

"I have in mind that it will consider not only the ability of the industries under our jurisdiction to fulfill whatever they may be called upon to furnish, but also the problems which they face in being supplied with the critical materials and manpower necessary for them adequately to perform."

Mr. Crosser said that "another item of immediate concern" to his group is the allocation of steel for such fields as freight-car building and petroleum exploration.

Canadian Roads Prepare For August 22 Strike

Following union rejection of their "final offer" for settlement of a long-pending wage-hour dispute, the Canadian National and the Canadian Pacific announced on August 10 that they "have no alternative but to prepare for strike action by the employees" at 6 a.m. on August 22. "Appropriate announcements and arrangements," the railroads' statement said, "will be made at once."

The controversy, which affects the Ontario Northland and the Toronto, Hamilton & Buffalo as well as the C. N. and the C. P., involves about 125,000 employees, mostly non-operating, who are represented by 15 international and two Canadian unions. It dates from June 16, 1949, and is centered on the unions' demand for reduction of weekly working time from 48 hr. to 40 hr. with no reduction in pay, plus wage increases of 7 cents per hour for employees represented by the international unions and 10 cents per hour for the Canadian unions. On April 14, this year, government conciliation boards proposed a compromise settlement calling for a 44-hr. work week with an hourly pay increase of about 6.8 cents. The railroads accepted these proposals, but the unions rejected them, and, following circulation of strike ballots, set August 22 as the date for the strike for which the companies were preparing as this issue went to press. (See *Railway Age* of August 5, page 66, and August 12, page 68.)

Terms of Final Offer

The railroads' "final offer" was made personally to the full negotiating committees of the two union groups on August 10 by Donald Gordon, chairman and president of the C. N., on behalf of himself and W. A. Mather, president of the C. P., who was represented by N. R. Crump, C. P. vice-president. The offer, which excluded hotel and water transport employees, provided for:

(I) Recognition by the railways of a moral obligation to implement the 40-hr. week at the appropriate time.

(II) Recognition by the unions in principle, subject to negotiation in detail, of 10 amendments to existing contracts.

(III) *Either* (A) A 44-hr. basic work week with a 9.1 per cent increase in hourly rates so as to maintain take-home pay. (In regard to monthly rated clerical employees there would be an understanding that a five-day actual work week may be granted by local arrangement in selected cases where hours now actually worked are less than 44, on condition that the requirements of the service are protected up to 44 hours per week.)

Or (B) An increase in basic wage rates approximately equivalent in expense to that involved under Plan A. This would average 8½ cents per hour for all employees, but would be graduated in three steps to provide for:

(1) A maximum hourly or monthly increase.

(2) Lesser amounts in specific cases where necessary to:

(a) Avoid raising occupational rates still further above those paid for comparable work in outside industry, or

(b) Widen the differential between successive positions to provide a reasonable incentive for advancement.

Union rejection of this offer followed almost immediately, in spite of Mr. Gordon's description of the proposal as "the ultimate which can be expected." "It is," he told the union representatives, "a final offer and no good purpose will be served in taking it as another bargaining point. If it is not accepted, then it must follow that all compromise offers in this dispute are withdrawn and the railways stand by the provisions of the agreement dated July 16, 1948, without any amendment."

Questions Unions' "Good Faith"

He predicted that "you will live to regret it . . . if you force this issue to a conclusion through imposing upon the Canadian public the disaster of a strike"; and foresaw "great unhappiness and self-reproach" for many individual employees if union leaders "call upon them" to "carry out their undertaking to strike." He further told the union leaders that:

"The railways feel they have honestly tried to promote discussions into a collective bargaining atmosphere and that they have been unable to obtain cooperation in their effort. . . . Discussions have produced no proposals from employee representatives; each meeting has simply been a probing by the unions for concessions from management with no indication whatever that the unions are willing to consider anything but their original requests."

"These circumstances," he added, "apparently confronted the companies with an ultimatum" for demands which he estimated would increase annual railroad operating costs by $80,158,000 for the 40-hr week maintaining take-home pay, $110,736,000 for the 40-hr. week plus a 7-cent hourly wage increase, and $123,837,000 for the 40-hr. week with a 10-cent wage increase. Compensating freight-rate increases he estimated at 24 percent, 34 per cent and 38 per cent, respectively; and concluded with the statement that:

"We question definitely that the union representatives are bargaining in good faith. Our experience in our discussions with you leads us to believe that each suggestion made by us in an effort to effect a settlement becomes a lever for probing still further concessions. It must be remembered that we have responsibilities not only to our employees but as well to the public at large who are entitled to railway service at reasonable cost and on a basis to meet their requirements."

Earlier in his statement, Mr. Gordon had emphasized that the railroads "do not resist the trend to a 40-hr. week," but as a service industry they cannot, "on this particular point lead the parade in advance of the industries they must serve."

Cabinet Asks Postponement

On August 16, following meetings on that day and the day before, the Canadian cabinet addressed to the railways and the union chiefs a letter appealing for settlement of the dispute and making a formal request for a 30-day postponement of the strike deadline if no solution appeared in prospect by August 22. The letter contained no specific formula for settlement of the questions involved, but Prime Minister Louis St. Laurent said if the strike was postponed the government would name a special commissioner to mediate the dispute. He also said that postponement had been requested in part because of the "dangers of the international situation." Neither railroads nor unions had replied to the government's request when this issue went to press.

1950 First-Quarter Loading Estimates 12.3% High

The 13 Regional Shippers Advisory Boards overestimated car loadings for the first quarter of 1950 by 12.3 per cent, according to the latest comparison of forecasts with actual loadings.

Chairman Arthur H. Gass of the Car Service Division, Association of American Railroads, issued the comparison. He noted that while two boards turned in underestimates, the range of overestimates by the remaining boards was from 3.9 per cent to 27.4 per cent.

By commodities, there was a range from an overestimate of 31.3 per cent in the case of hay, straw and alfalfa to an underestimate of 30.1 per cent on cotton. In addition to that on hay, straw and alfalfa, there were overestimates of 28.9 per cent on citrus fruits;

COMPARISON: ESTIMATED NATIONAL FORECAST REGIONAL SHIPPERS ADVISORY BOARDS WITH ACTUAL CARLOADINGS FIRST QUARTER 1950

Board	Carloadings 1st Qr. Estimated	1950 Actual	Percentage Over Est'd.	Percentage Under Est'd.
Central Western	254,354	219,727	13.6	
Pacific Coast	293,983	300,078		2.1
Pacific Northwest	205,414	182,268	11.3	
Great Lakes	450,576	398,106	11.6	
Ohio Valley	854,621	741,699	13.2	
Mid-West	854,592	712,131	16.7	
Northwest	248,019	201,100	18.9	
Trans-Mo-Kansas	350,781	323 684	7.7	
Southeast	900,626	849,984	5.6	
Southwest	437,311	481,749		10.2
New England	133,035	127,800	3.9	
Atlantic States	788,013	674,720	14.4	
Allegheny	999,278	725,489	27.4	
Totals	6,770,603	5,938,445	12.3	

Let the Engineer do the driving!

ADVICE FOR MOTORISTS, courtesy of the Chicago, Milwaukee, St. Paul & Pacific, comes in the form of an 8-page booklet "Let the Engineer do the Driving." Distributed to prospective Milwaukee road travelers, the booklet light-heartedly compares the "comfort," safety and cost of highway travel with that of the "Hiawatha" streamliners. Concluding on a note of poetry, the booklet declares, "No traffic jams, no weather worries, while you relax, the railroad hurries"

27 per cent on coal and coke; 19.7 per cent on machinery and boilers; 18.1 per cent on iron and steel; and 12.4 per cent on all grain. The next largest underestimate to that noted above was 13 per cent on food products in cans and packages, while others included 10.9 per cent on cotton seed, soybean-vegetable cake and meal, excluding oil, and 10.8 per cent on lime and plaster.

G.E. Starts Large-scale Production of Gas Turbines

Large-scale production of gas turbines for land, railroad, and marine use has been started by the General Electric Company in Schenectady, N. Y., plant facilities now being equipped at a cost in excess of $4,000,000.

"Technological advances during the last 12 years and successful operation of units now installed indicate the gas turbine is ready to assume a significant role in the power field, along with steam and mercury power plants," Glenn B. Warren, manager of the company's Turbine divisions, said. "Further advances will find the gas turbine an effective tool, when properly applied, for still further reducing the cost of power."

Gas turbines now scheduled for production, Mr. Warren said, will be in three basic models:

A 3,500-kw. (4,800-hp.) simple-cycle type, similar to three units now operating —one for a Southwestern utility company, one for a New England power company, and the other in a gas turbine-electric locomotive;

A 5,000-kw. two-shaft compound-cycle type for power generation use; and

A newly designed 5,000-hp. two-shaft mechanical-drive type for gas pipeline pumping and other applications.

Other sizes and types will be put into production as the gas turbine program develops, Mr. Warren added, emphasizing that "future applications are many and varied." Because of its compactness and quick-starting ability, the simple-cycle unit is well suited, he pointed out, for locomotive and marine use as well as for mounting on a railway car or motor truck for portable emergency power generation use.

One such unit, burning bunker "C" oil, is installed in an Alco-G.E. locomotive. Although in the developmental stages and still under test, the locomotive is being used alongside other forms of motive power in regular freight service by the Union Pacific.

A.A.R. Honors Clement

In appreciation of his 16 years of service as a member of its board of directors, and of the fact that he had served continuously as a member of that board since the association's organization in 1934, the Association of American Railroads has presented to M. W. Clement, chairman of the board of the Pennsylvania, a gold embossed scroll expressing appreciation for his contributions to the railroad industry. The presentation was made by W. T. Faricy, president of the A.A.R., at Philadelphia, Pa. late last month.

Mr. Clement relinquished his membership on the A.A.R. board following his retirement from the presidency of the Pennsylvania on June 16, 1949. (See *Railway Age* of June 11, 1949, page 48.)

Travel Credit Cards Dropped By 21 Additional Roads

Rail travel credit service will be dropped by 21 western and southwestern railroads on August 31. Four additional roads plan to follow suit on September 30. Reasons cited include lack of patronage, mounting operating costs and generally declining passenger revenues.

At present, there are only about 28,000 active cards among the 118,000 still outstanding. Established in April, 1947, the rail Travel Credit Agency continued to experience a growth in number of cards outstanding even after several of the larger eastern roads dropped out of the plan at the end of 1949. (See *Railway Age* of November 26, 1949, page 56.) The dollar volume of tickets sold under the plan, however, has shown a marked decline in recent months, in some cases being

as much as one-fourth less than for the corresponding month of 1949. At the height of their use, credit cards accounted for total ticket sales of about $1,250,000 a month. All monthly totals available for 1950 are under the $500,000 mark.

Roads that will continue to honor the cards are: Atchison, Topeka & Santa Fe; Santa Fe Coast Lines; Chicago, Burlington & Quincy; Colorado & Southern; Denver & Rio Grande Western; Fort Worth & Denver City; Great Northern; Gulf, Mobile & Ohio; Illinois Central; Illinois Terminal; Kansas City Southern; Louisiana & Arkansas; Midland of Manitoba; Minneapolis & St. Louis; Missouri-Kansas-Texas; Missouri-Kansas-Texas of Texas; Oregon Trunk; Panhandle & Santa Fe; St. Louis-San Francisco; St. Louis, San Francisco & Texas; Spokane, Portland & Seattle; Wabash (at stations west of Chicago and Danville, Ill.); and Western Pacific.

Those lines have added a new convenience to the credit service — the ability to rent a car from any Hertz Driv-Ur-Self station for periods up to 30 days without making a deposit.

Waybill Studies

Two new carload waybill studies, designated as Statements No. 5023 and 5024, have been issued by the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. Study No. 5023 covers state-to-state distribution of animals and products, by commodity classes, for the year 1948; No. 5024 covers state-to-state distribution of products of forests, by commodity classes, for 1948. Both studies were prepared on the basis of representative 1 per cent samples of terminated waybills.

Short Line Non-Op Case Goes To Emergency Board

President Truman on August 11 created an emergency board to investigate a dispute between 26 short line roads and 16 non-operating railroad labor organizations — the dispute involving an effort on the part of the unions to obtain the 40-hr. week, with 48-hr. pay, on the 26 roads.

While the 40-hr. week for non-operating employees was established in the railroad industry generally in September, 1949, the short lines in the present case have substantially all taken the position that they cannot financially afford to follow the national pattern.

Members of the board appointed to study the case are Judge Thomas E. Gallagher of the Minnesota Supreme Court; George W. Stocking, professor of economics at Vanderbilt University, Nashville, Tenn.; and Walter Gellhorn, professor of law at Columbia University, New York City. Hearings were scheduled to begin August 16 in Washington, D. C.

The order creating the board stated that each of the 26 roads "shall be given independent consideration," while the labor organizations "shall be permitted to function as a unit in proceedings before the board."

Freight Car Loadings

Loadings of revenue freight in the week ended August 12 totaled 847,465 cars, the Association of American Railroads announced on August 17. This, the A.A.R. said, was the largest weekly total since the week ended November 13, 1948. It represented an increase of 10,247 cars, or 1.2 per cent, over the previous week; an increase of 119,436 cars, or 16.4 per cent, over the corresponding week last year; and a decrease of 43,811 cars, or 4.9 per cent, below the equivalent 1948 week.

Loadings of revenue freight for the week ended August 5 totaled 837,218 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, August 5

District	1950	1949	1948
Eastern	148,422	123,611	157,964
Allegheny	169,410	136,718	177,994
Pocahontas	61,163	46,442	73,421
Southern	127,160	105,126	128,402
Northwestern	138,647	132,481	139,991
Central Western	129,042	116 281	132,878
Southwestern	63,374	56,204	67,997
Total Western Districts	331,063	304,966	340,866
Total All Roads	837,218	716,863	878,647
Commodities:			
Grain and grain products	56,754	59,541	59,998
Livestock	7,335	8,916	10,114
Coal	151,058	108,525	184,824
Coke	15,157	9,153	15,035
Forest products	49,362	40,740	51,415
Ore	78,534	71,655	77,553
Merchandise l.c.l	85,838	89,402	103,150
Miscellaneous	393,180	328,931	376,558
August 5	837,218	716,863	878,647
July 29	844,849	724,044	894,375
July 22	829,884	718,516	882,129
July 15	789,268	724,183	892,080
July 8	553,876	595,321	755,100
Cumulative total 31 weeks	21,742,358	22,216,009	25,129,841

June Truck Traffic

Motor carriers reporting to American Trucking Associations transported in June 4,164,432 tons of freight, an increase of 3.6 per cent over the previous month's total of 4,020,397 tons, and an increase of 25.8 per cent above the 3,311,137 tons transported in June, 1949. The figures, according to A.T.A., are based on comparable reports received from 302 carriers in 42 states.

I.C.C. Acts On Two More Reed-Bulwinkle Pacts

Division 2 of the Interstate Commerce Commission has rejected a Bulwinkle-Act agreement proposed by a group of motor carriers which are members of the Central States Motor Freight Bureau. The commission's dismissal, in Section 5a Application No. 20, was without prejudice to the subsequent filing of an agreement in conformity with the I.C.C.'s views.

The proposed agreement was disapproved on the grounds that limiting the right of independent action to 15 days is contrary to the meaning of section 5a(6) of the act. The division's report also discussed various questions that had been raised with respect to the proposed by-laws of the motor carrier group.

Meanwhile, in Section 5a Application No. 8, Division 2 conditionally approved a Bulwinkle-Act agreement establishing the Inland Water Carriers' Freight Association. This latter association is composed of water carriers in the lower Mississippi River and Gulf area.

The association is set up to receive, consider, and take action on traffic matters relating to the transportation of property from, to, and between ports and points served its members. Division 2 said final commission approval of the agreement is being withheld pending acceptance by the association of the imposed conditions.

Florida Intrastate Rates

The Interstate Commerce Commission has ordered railroads operating in Florida to raise their intrastate rates on or before September 28, and thereby bring them in line with the interstate rate level authorized in Ex Parte 166. The commission's action, in the form of a cease and desist order to the roads, was taken after the Florida Railroad & Public Utilities Commission had failed to authorize the increases.

In a report issued May 4, the I.C.C. found that Florida intrastate rates were an unjust discrimination against interstate commerce, and that they comprised undue preference to intrastate commerce. The commission allowed 30 days from May 15 for the Florida commission to notify that it would permit the increases.

The present order was issued after the Florida commission failed to act. The order allows the roads until September 28, or not less than 30 days' notice, to establish "freight rates and charges which shall be no lower than the approved rates and charges, or on the approved rate bases" as provided in the May 4 report.

P.R.R. Opens New Display, Delivery Room for Fruits

A new air-cooled display and delivery room has been placed in service at the Pennsylvania's produce terminal, pier 27, North river, New York. Designed to house certain so-called "soft" fruits during unusually hot weather, the facilities will have a capacity ranging between 35 and 40 freight car loads and will be able to hold temperatures inside down to 45 or 50 degrees Fahrenheit when outside air reaches 80 degrees. Through utilization of previously installed electric blowers needed for circulation of heat from steam pipes in winter, and construction of new ice chambers, baffles and drainage pans, as well as a series of movable canvas curtains, the Pennsylvania, with the aid of its contractors, the Penn Stevedoring Corporation, was able to effect conversion of its storage space in short time.

If this service proves popular, additional cold storage space may be made quickly available on pier 28.

Neither shippers nor consignees pay any extra charge for use of the cooling facilities, which are provided when requested by the shipper. They occupy an area approximately 700 ft. long by 42 ft. wide and 16 ft. high on the south side of pier 27. This storage space is intended for holding fruit at optimum temperature during the few hours between unloading from refrigerator cars until buyers have made their early-morning inspection of the displayed fruit and the carloads have been sold at auction on the piers and removed by truck. Buyers' trucks may enter the cooled area to load without disturbing operation of the refrigerating system.

May Accident Statistics

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics preliminary summary of steam railway accidents for May and this year's first five months. The compilation, which is subject to revision, follows:

Item	Month of May		5 months ended with May	
	1950	1949	1950	1949
Number of train accidents*	740	630	3,698	3,796
Number of accidents resulting in casualties	39	37	188	208
Number of casualties in train, train-service and non-train accidents:				
Trespassers:				
Killed	112	98	393	406
Injured	114	100	418	383
Passengers on trains:				
(a) In train accidents*				
Killed	—	1	30	1
Injured	35	6	521	171
(b) In train-service accidents				
Killed	3	—	9	9
Injured	150	171	775	819
Travelers not on trains:				
Killed	—	3	3	3
Injured	74	58	344	318
Employees on duty:				
Killed	26	32	122	173
Injured	1,605	1,783	7,904	9,705
All other nontrespassers:**				
Killed	113	121	663	661
Injured	366	333	2,355	2,450
Total—All classes of persons:				
Killed	254	255	1,220	1,253
Injured	2,344	2,451	12,317	13,846

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $275 or more to railway property. Only a minor part of the total accidents result in casualties to persons, as noted above.

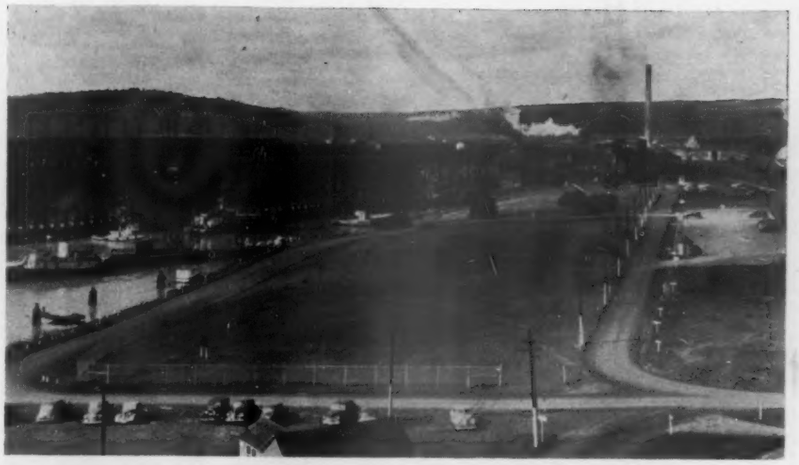
**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	102	108	619	607
Injured	249	210	1,704	1,668

Illinois Central Publishing A Centennial History

To mark its 1951 entry into a second century of public service, the Illinois Central is publishing a history of the railroad under the title, "Main Line of Mid-America." Material for the manuscript — which has been recently completed — was compiled by Carlton J. Corliss, a former member of the road's engineering department and its public relations staff.

To compile the text, Mr. Corliss was given a special 2½-yr. leave of absence from his present post with the Association of American Railroads, during which time he combed through a wide variety of libraries, public records and historical collections, both public and private. The corporate records of the railroad from 1851 to 1906, which were deposited with the Newberry Library in Chicago in 1944, furnished him with considerable material. Mr. Corliss also interviewed descendants of men prominent in early affairs of the railroad and made an extensive study of the Lincoln papers in the Library of Congress (in connection with Abraham Lincoln's service to the railroad as a lawyer). Much original information, heretofore unpublished, has been uncovered by Mr. Corliss and will appear in the book, according to a recent announcement by the railroad.



NOW IT'S P.H. VAN HOVEN PARK.—Named in honor of the Duluth, Missabe & Iron Range's president by a group of local civic organizations, this lake front park at Two Harbors, Minn., provides tourists a panoramic view of the railroad's iron ore loading operations. Opened to visitors in 1949 after being laid out by the railroad, the park remained unnamed until this year, when the Two Harbors Civic association and the Rotary club publicly dedicated it to Mr. Van Hoven. Park visitors are supplied with a pamphlet describing the harbor facilities and a bit of the history of the town, the railroad and the docks. D.M. & I.R. watchmen, on duty in the park to assist tourists during visiting hours, have distributed over 25,000 copies of the pamphlet

Ontario Northland Opens New Telephone Center

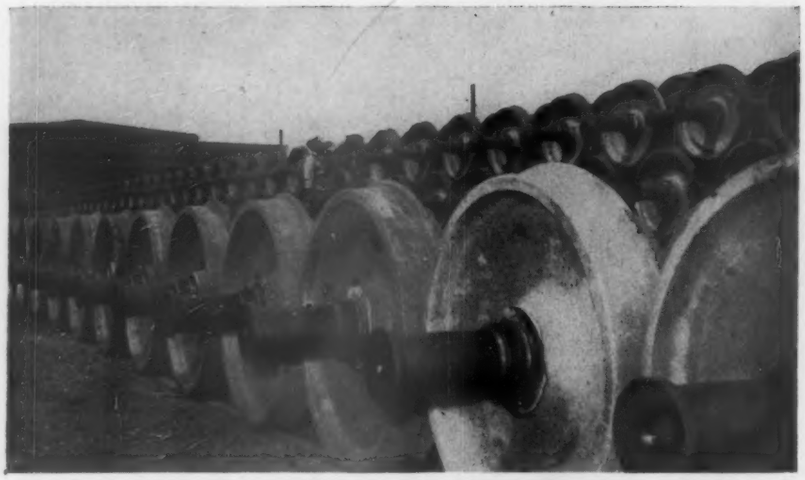
The Ontario Northland has recently opened a new $215,000 long-distance telephone building to serve the public in the Rouyn-Noranda (Que.) area, where the railroad has operated a public telephone service for many years. On July 14 the communications facilities were removed from the upper part of the Noranda railroad station to the new 47-ft. by 75-ft. brick and limestone building located at Third avenue and Seventh street in Noranda. To commemorate the occasion, the Ontario Northland Transportation Commission (which operates the railroad) has issued to telephone subscribers a 16-page illustrated booklet which describes the equipment and facilities of the new installation and introduces both the supervisory and operating personnel.

The engineering department of the railroad acted as a liaison between the architects — Bruce, Brown & Brisley — and the commission's communications department. The building was constructed by Hill-Clark-Francis, Ltd., of Noranda, and telephone equipment was supplied and installed by the Northern Electric Company.

General Motors Opens Canadian Locomotive Plant

General Motors Diesel, Ltd., officially opened its new Canadian Diesel locomotive building plant at London, Ont., on August 11. The event was celebrated with a luncheon, at which E. V. Rippingille, Jr., president of General Motors Diesel, Ltd., was host to several hundred guests, including representatives of industry; of commerce; of business press and newspapers from Canada and the United States, and of the municipal, provincial and Dominion governments. In the afternoon, following a tour of the plant, dedication ceremonies were held, at which guests and plant employees were present. The luncheon addresses were delivered by Charles F. Kettering, research consultant and director of General Motors Corporation, and by the Honorable Ray Lawson, lieutenant governor of Ontario. The speakers in the afternoon were C. E. Wilson, president of General Motors, and Mr. Lawson.

The new locomotive plant is built on a site of 210 acres. It covers an



SOON TO ROLL under new freight cars, these wheels are only a small portion of the total ordered in connection with a Union Pacific freight car building and purchase program. The entire program calls for purchase from contract builders and construction in company shops of a total of 7,500 freight cars at a total estimated cost of approximately $43,800,000

area of 198,276 sq. ft. and, with an employment at full operation of 1,000 men, is expected to produce one locomotive unit per day. These units will be of six types, ranging from 600 to 1,500 hp.

The plant was built in an unusually short time. Ground was broken September 22, 1949; erection of steel began on December 1; the plant office was occupied on May 8, 1950, and the plant, itself, on June 1. At the present time 700 employees are at work.

Diesel engines and the electric generators and motors are not being built at the Canadian plant. Electric control equipment, chasses, cabs, auxiliary equipment and trucks are all Canadian built.

Monon's July Freight Revenue Hits All-time High

Freight revenue for the month of July set an all-time record on the Chicago, Indianapolis & Louisville. John W. Barriger, president of the road, told *Railway Age* that the month's gross freight income exceeded that of any other month in the company's 103-yr. history.

President Barriger also said the Monon has embarked on an extensive "preparedness" program which includes immediate acquisition of 100 additional box cars and 150 open-top cars of various types, with the probable enlargement of this program to double that number of cars within the very near future. The program also includes immediate repair of some 200 bad order cars currently on hand, and the readying of all idle passenger equipment for possible war-time service.

Inquiries for the 250 freight cars were reported in the *Railway Age* of August 5.

B. & M. to Operate New Boston Pier

The new $3-million Hoosac pier at Boston, Mass., was officially taken over on August 9 by the Boston & Maine, for operation by its subsidiary Mystic Terminal Company. The pier, built by the Port of Boston Authority for the Commonwealth of Massachusetts, is leased by the B.&M. It will be operated under immediate supervision of D. J. Hurley, general superintendent; Mark Devlin, dock superintendent, and Timothy Crowley, assistant to dock superintendent, of Mystic Terminal.

Adaptable to the handling of passenger ships as well as cargo carriers, the pier contains 202,000 sq. ft. of covered pier space, has two berths 540 ft. long and one 500 ft. long, (all with 35 ft. of water at mean low tide), ship-side rail tracks and modern handling facilities.

OVERSEAS

Brazil.—The five electric locomotives which, as reported in the *Railway Age* of July 8, page 108, were purchased by the Paulista Railway of Brazil from the International General Electric Company are the last five of an order of 20 originally built for export to Russia. Of the remaining 15 locomotives, 12 have been sold to the Chicago, Milwaukee, St. Paul & Pacific, as reported in last week's issue, and three to the Chicago South Shore & South Bend. (See *Railway Age* of June 4, 1949, page 59.)

Great Britain.—The British Railways have ordered six units for laying pre-fabricated track. Five units, to be operated hydraulically, will be built at Swindon, Eng., for use on the Western, North Eastern and Scottish regions. The remaining unit, to be operated by compressed air, will be built by, and used on, the Southern region. The new units will consist of vehicles equipped with cantilever lifting arms which can swing out over an adjoining track, lift out a 60-ft. length of track weighing 4½ tons and replace it with a new section of pre-fabricated track. The complete operation takes about 4 minutes. The units can be used in tunnels and other confined spaces where there is no room for cranes.

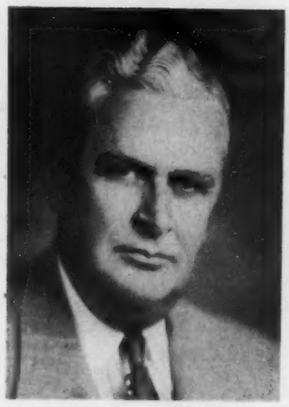
Thailand.—Electrical equipment for 45 Diesel-electric locomotives has been ordered by the National Railways of Thailand from the Westinghouse Electric International Company. Manufacture of mechanical apparatus and assembly of the locomotives are being carried out by the Davenport-Besler Company, Davenport, Iowa, with deliveries scheduled to begin in January, 1951. Westinghouse traction motors, controls, generators, gears, and pinions will be provided for 15 78-ton passenger locomotives and 30 53-ton freight locomotives. Each of the larger units will have two triple-axle trucks driven by motors rated at 920 net traction hp., while each of the smaller locomotives will have two double-axle trucks driven by motors totaling 460 hp. The units will replace steam locomotives destroyed or confiscated by the Japanese in World War II. They will serve about 2,100 mi. of trackage radiating from Bangkok, the capital of Thailand. Westinghouse plants in East Pittsburgh, Pa., and Newark, N. J., are building the equipment.

SUPPLY TRADE

L. C. Daniels, formerly chief engineer for the Towmotor Company, Cleveland, Ohio, has joined the **Buda Company** as vice-president in charge of the material handling division.

Dr. E. W. Volkmann and **Dr. F. L. Jones** have been appointed assistant managers of the research department of the **Koppers Company.** Dr. Volkmann will be responsible for the laboratory and development sections of the department, while Dr. Jones will supervise the research administration and patents sections.

The **National Battery Company** will operate under the new name of **Gould-National Batteries, Inc.,** which change evolves from the purchase of the **Gould Storage Battery Company.** Policies, management and operation of Gould-National Batteries, Inc., will remain the same as those fol-



Left to right: Philip D. Blanchard, H. Gene Harrison and Samuel L. Brownlee, whose appointments as, respectively, manager of service, assistant manager of service and manager of sales, western district, of the Superheater Company, division of Combustion Engineering-Superheater, Inc., were reported in *Railway Age* of August 12, page 75

lowed heretofore by Gould and by National. The same sales and field engineering organizations, which have been serving under the name of the Gould Storage Battery Corporation, will now operate under the new name, with headquarters as before at Trenton, N. J. **M. W. Heinritz,** formerly vice-president of Gould Battery, has been elected vice-president in charge of industrial sales of Gould-National Batteries.

Gilbert E. Webster, whose election as president of the **National Lock Washer Company,** Newark, N. J., was announced in last week's *Railway Age*, was born in Odon, Ind., on November 23, 1900. In addition to public school he attended military school in Mexico, Mo. Mr. Webster began his business career in 1918 with the Illinois Central, working as a clerk, statistician and chief clerk on the Illinois division of this road until 1922. From 1923 to 1938, he was associated

Gilbert E. Webster

with the P. & M. Company as foundry sales representative and southwestern sales agent and, during part of this period, also was associated with the southwestern sales representative of National Lock Washer. In 1939 he was appointed manager of railway track spring washer sales of National Lock Washer and later was appointed general sales manager and vice-president. He was vice-president and director at the time of his recent election.

The **Nickel Cadmium Battery Corporation** has appointed the **Valley Bearing & Equipment Co.,** 1 North LaSalle street, Chicago 2, as sales representative for Nicad storage batteries for Diesel railway locomotive starting.

John P. Mullen has been placed in charge of public relations, advertising and sales promotion for the **Hunt-Spiller Manufacturing Corporation,** Boston, Mass.

CAR SERVICE

I.C.C. Service Order No. 857 has been modified by amendment No. 1, effective August 12. The amendment adds intrastate movements in Illinois to the territory covered by the order. Thus the order now authorizes roads transporting fruit and vegetable containers, in carloads, from origins in Pennsylvania, Delaware, Maryland and New Jersey to destinations in those same states, or from origin points to destination points wholly within Illinois, to furnish two refrigerator cars of BREX, WFEX or FGEX ownership in lieu of each box car ordered.

Amendment No. 1 to I.C.C. Service Order No. 858 modified the original order, effective August 11, by setting aside the paragraph restricting the backhauling of lumber. (See *Railway Age* of August 12, page 72.)

I.C.C. Service Order No. 860 has been modified by amendment No. 1, effective August 10. The amendment brings intrastate movements in Washington under the order, and also specifies the ownership of refrigerator cars that may be substituted for box cars. As the order now stands, not more than three refrigerator cars of FGEX, WFEX, BREX, PFEX, SFRD or NP ownership may be furnished in lieu of each box car ordered. The order covers movement of fruit and vegetable containers, box shooks or other packaging or packing materials, in carloads, moving from origins in Washington, Oregon or California to destinations in California, or moving from origin points to destination points wholly within the state of Washington. (See *Railway Age* of August 12, page 72.)

ORGANIZATIONS

Exhibit at Signal Section Meeting

During the annual meeting of the Signal Section of the Association of American Railroads, at the Hotel Statler in New York, on September 18-20, the Signal Appliance Association will hold an exhibit in the Penn Top (18th floor) of the hotel. The following companies are to exhibit:

Acme Railbond Engineering Company, Detroit, Mich.; Adams & Westlake Co., Elkhart, Ind.; Aircraft-Marine Products, Inc., Harrisburg, Pa.; American Brake Shoe Company (Ramapo Ajax Division), New York; American Steel & Wire Co., Cleveland, Ohio; Anaconda Wire & Cable Co., New York; James G. Biddle Company, Philadelphia, Pa.; Corning Glass Works, Corning, N. Y.; Thomas A. Edison, Inc., Bloomfield, N. J.; Electric Storage Battery Company, Philadelphia; Electro Controls Corporation, Chicago; Erico Products, Inc., Cleveland; Flood Company, Hudson, Ohio; General Electric Company, Schenectady, N. Y.; Gould Storage Battery Corporation, Trenton, N. J.; Griswold Signal Company, Minneapolis, Minn.; Hanlon & Wilson Co., Wilkinsburg, Pa.; Justrite Manufacturing Company, Chicago; Kerite Company, New York; McDougall Butler Company, Buffalo, N. Y.; Minnesota Mining & Manufacturing Co., St. Paul, Minn.; Motorola, Inc., Chicago; National Carbon Company, New York; National Telephone Supply Company, Cleveland; Ohio Brass Company, Mansfield, Ohio; Okonite Company, New York; Permacrete Products Corporation, Columbus, Ohio; Rail Joint Company, New York; Rails Company, Hoboken, N. J.; Spaulding Fibre Company,

Tonawanda, N. Y.; Transport Products Corporation, Louisville, Ky., and Western Railroad Supply Company, Chicago.

Supply Groups Plan Largest Exhibit

A total of 120 manufacturers have contracted to participate in the joint exhibit of the Track Supply Association and the Bridge & Building Supply Men's Association, which is to be held at the Coliseum, Chicago, September 18-20, during the concurrent conventions of the Roadmasters' Association and the American Railway Bridge & Building Association at the Stevens hotel. These companies will occupy a total of 251 booths.

This will be the largest exhibit ever to be held by these two associations. The largest previous exhibit was in 1948, when 93 companies occupied 157 booths. In the past, exhibits of these associations have been held in the exhibition hall of the Stevens, but this year, because of the large number of companies desiring to participate, it was necessary to engage the larger facilities of the Coliseum.

Some exhibit space is still available and companies wishing to participate should write to Lewis Thomas, director of exhibits, 59 E. Van Buren street, Chicago.

The 120 companies that have arranged for exhibit space to date are as follows:

Achuff Railway Supply Company, St. Louis, Mo.; Air Reduction Sales Company, New York; Allied Chemical & Dye Corp., General Chemical Division, New York; Allis-Chalmers Manufacturing Company, Tractor Division, West Allis, Wis.; Aluminum Company of America, Pittsburgh, Pa.; American Brake Shoe Company, Ramapo Ajax Division, Chicago; American Hoist & Derrick Co., St. Paul, Minn.; American Lumber & Treating Co., Chicago; American Structural Products Company, Toledo, Ohio; Armco Drainage & Metal Products, Inc., Middletown, Ohio; Austin-Western Company, Aurora, Ill.; Barco Manufacturing Company, Chicago; Benbow Fence Tightener Company, Benbow, Cal.; Bernuth, Lembcke Company, New York; Bird & Son, Inc., East Walpole, Mass.; Brainard Steel Company, Warren, Ohio; Branson Instruments, Inc., Stamford, Conn.; Briggs & Stratton Corp., Milwaukee, Wis.; Buda Company, Harvey, Ill.; F. Burkart Manufacturing Company, St. Louis; Caterpillar Tractor Company, Peoria, Ill.; Chain Belt Company, Milwaukee, Wis.; Chattanooga Welding & Machine Co., Chattanooga, Tenn.; Chicago Pneumatic Tool Company, New York; Chipman Chemical Company, Bound Brook, N. J.; Cullen-Friestedt Company, Chicago; Davey Compressor Company, Kent, Ohio; Dearborn Chemical Company, Chicago; Detroit Diesel Engine Division, General Motors Corporation, Detroit, Mich.; Dow Chemical Company, Midland, Mich.; Duff-Norton Manufacturing Company, Pittsburgh; Eaton Manufacturing Company, Massillon, Ohio; Electric Tamper & Equipment Co., Ludington, Mich.; Eutectic Welding Alloys Corporation, New York; Fabreeka Products Company, Boston, Mass.; Fairbanks, Morse & Co., Chicago; Fairmont Railway Motors, Inc., Fairmont, Minn.; G. & H. Rail Controls, Inc., Kansas City, Mo.; Gary Slag Corporation, Chicago; A. J. Gerrard & Co., Melrose Park, Ill.; Gravely Motor Plow & Cultivator Co., Dunbar, W. Va.; Brice Hayes Company, Chicago; Hayes Track Appliance Company, Richmond, Ind.; Homelite Corporation, Port Chester, N. Y.; Hubbard & Co., Tool Division, Pittsburgh; Illinois Malleable Iron Company, Chicago; Industrial Brownhoist Corporation, Chicago; Ingersoll-Rand Company, New York; International Harvester Company, Chicago; Johns-Manville Sales Corporation, New York; O. F. Jordan Company, East Chicago, Ind.; Joyce-Cridland Company, Dayton, Ohio; Kalamazoo Manufacturing Company, Kalamazoo, Mich.; Kershaw Manufacturing Company, Montgomery, Ala.; Koehring Company, Milwaukee; Koppers Company, Inc., Pittsburgh; Lehon Company, Chicago; LeRoi Company, Chicago; Link-Belt Speeder Corporation, Chicago; Locomotive Finished Material Company, Atchison, Kan.; Lyle Signs, Inc., Minneapolis, Minn.; Maintenance Equipment Company, Chicago; Mall Tool Company, Chicago; Massey Concrete Products Company, Chicago; Master Builders Corporation, Cleveland, Ohio; Matisa Equipment Corporation, Chicago; Mid-West Forging & Manufacturing Co., Chicago; Modern Railroads Publishing Company, Chicago; Morrison Railway Supply Corporation, Buffalo, N. Y.; Motorola, Inc., Communications and Electronics Division, Chicago; Murdock Manufacturing & Supply Co., Cincinnati, Ohio; National Lead Company, New York; National Lock Washer Company, Newark, N. J.; Nordberg Manufacturing Company, Milwaukee; Oliver Corporation, Industrial Division, Cleveland; Oliver Iron & Steel Corp., Pittsburgh; D. W. Onan & Sons, Inc., Minneapolis; Oxweld Railroad Service Company, New York; P. & M. Co., Chicago; Pacific Coast Borax Company, Los Angeles, Cal.; Earl H. Pence & Co., San Leandro, Cal.; Permacrete Products Corporation, Columbus, Ohio; Pettibone Mulliken Corporation, Chicago; Pocket List of Railroad Officials, New York; Pullman-Standard Car Manufacturing Company, Chicago; Q & C Co., New York; Racine Tool & Machine Co., Racine, Wis.; Rail Joint Company, New York; Railroad Rubber Products, Inc., Ashtabula, Ohio; Rails Company, New Haven, Conn.; *Railway Age*, Chicago; Railway Ballast Conditioning Corporation, Minneapolis; Railway Maintenance Corporation, Pittsburgh; Railway Purchases and Stores, Chicago; Railway Track-work Company, Philadelphia, Pa.; Reade Manufacturing Company, Jersey City, N. J.; Rust-Oleum Corporation, Evanston, Ill.; Rydin Railway Equipment Company, Warrenville, Ill.; Safety First Shoe Company, Holliston, Mass.; Schramm, Inc., West Chester, Pa.; Service Supply Corporation, Philadelphia; Spaulding Fibre Company, Tonawanda, N. Y.; Sperry Products, Inc., Danbury, Conn.; Taylor-Colquitt Company, Spartanburg, S. C.; Teleweld, Inc., Chicago; Templeton, Kenly & Co., Chicago; Texas Company, New York; Thornley Railway Machine Company, Joliet, Ill.; Timber Engineering Company, Washington, D. C.; True Temper Corporation, Chicago; Unit Crane & Shovel Corp., Milwaukee; Warren Tool Corporation, Chicago; Wheel Checkers, Denver, Colo.; White Manufacturing Company, Elkhart, Ind.; Whiting Corporation, Harvey, Ill.; Wisconsin Motor Corporation, Milwaukee; Woodings-Verona Tool Works, Chicago; Woolery Machine Company, Minneapolis; Young & Greenawalt Co., East Chicago, and Zone Company, Fort Worth, Tex.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

The **Ann Arbor** has ordered 100 50-ton, 40½-ft. box cars from the American Car & Foundry Co. The road's intention to purchase this equipment was reported in last week's *Railway Age*.

The **Atlantic Coast Line** has ordered 400 70-ton covered hopper phosphate cars from the American Car & Foundry Co. Inquiry for 300 of these cars was reported in *Railway Age* of July 29, page 51.

The **Baltimore & Ohio** has ordered 200 50-ton covered hopper phosphate cars from the American Car & Foundry Co. Inquiry for 300 of these cars was reported in *Railway Age* of July 29, page 51.

The **Baltimore & Ohio** has ordered 200 50-ton automobile box cars from the American Car & Foundry Co. and 300 underframes from the Greenville Steel Car Company for 70-ton flat cars to be built in B.&O. shops. Inquiry for the box cars was reported in *Railway Age* of July 1, page 83, and inquiry for the underframes on page 51 of the July 29 issue.

The **Chicago & Eastern Illinois** has ordered 500 box cars. This is in addition to the 200 cars reported in the *Railway Age* of July 29, page 51. Of the new order, 200 cars will be built each by the Pullman-Standard Car Manufacturing Company and the American Car & Foundry Co. The remaining 100 cars will be built by the company's shops at Danville, Ill. The new order brings the total number of freight cars ordered by the C. & E. I. during 1950 to 1,088.

The **Chicago, Rock Island & Pacific** has received authorization from its board of directors to purchase 1,350 new freight cars. The approval covers the purchase of 350 50-ft. box cars, 500 53-ft. flat cars and 500 52-ft. gondolas.

The **Great Northern** has been authorized by its board of directors to acquire 250 new gondola cars at a cost of $1,500,000. The road currently has on order 35 Diesel-electric locomotives, 100 passenger-train cars and 50 refrigerator cars. Since the conclusion of World War II, the road has acquired a total of 150 Diesel locomotive units, 2 electric locomotives, 3,657 box cars 1,200 gondolas, 250 flat cars, 200 covered hopper cars and 77 passenger cars.

The **Illinois Central** has been authorized by its board of directors to spend $5,850,000 for the construction of 1,100 new freight cars. The road will construct 1,000 box cars in its own shops at Centralia, Ill., and will order from commercial builders 100 covered hopper cars.

The **New Jersey, Indiana & Illinois** has ordered 100 box cars from the American Car & Foundry Co. The road's intention to purchase these cars was reported in last week's *Railway Age*.

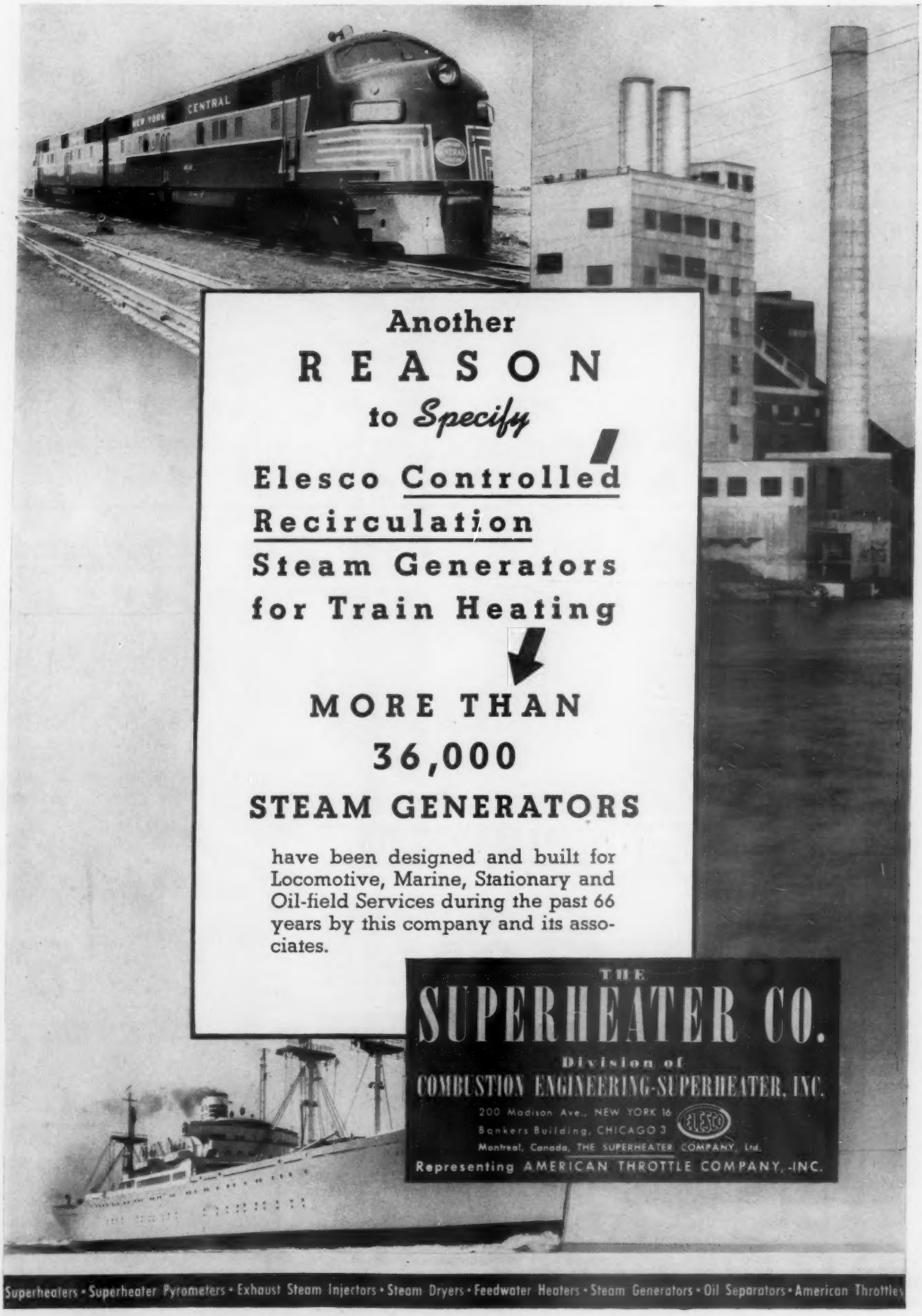
The **Norfolk & Western** has authorized construction in its own shops of 1,000 70-ton hopper cars. This is in addition to 1,000 cars of this type, authorization for which was reported in *Railway Age* of July 8.

The **Norfolk & Western** is inquiring for 500 50-ton 40½-ft. box cars.

The **Wabash** will build in its own shops the 500 box cars included in its car construction program, reported in *Railway Age* of August 12.

The **Western Maryland** has received bids on 410 70-ton gondola cars, 100 70-ton covered hopper cars, 40 70-ton flat cars and 150 50-ton box cars.

The **Western Fruit Express Company** has been authorized by the board of directors of the parent Great Northern to acquire 400 40-ft. steel refrigerator cars, to be constructed in company shops at a cost of $3,400,000; and to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ANNUAL REPORTS

Railroad		Operating Revenues	Operating Expenses	Fixed Charges	Net Income	Current Assets*	Current Liabilities*	Long Term Debt*
Alabama Great Southern	1949	$16,117,999	$12,616,445	$346,588	$2,365,915	$11,347,467	$4,367,319	$11,036,376
	1948	18,334,532	13,312,685	363,998	3,401,929	13,149,634	4,842,715	11,767,545
Bessemer & Lake Erie‡	1949	21,529,703	16,123,023	396,415	3,483,021	14,015,805	6,056,700	13,037,000
	1948	26,415,941	16,307,859	430,616	7,188,051	17,481,845	8,791,415	14,478,000
Canadian National	1949	500,723,386	478,501,660	48,631,896	42,043,026d	139,009,554	88,620,210	624,865,919
	1948	491,269,950	464,739,970	46,341,727	33,532,741d	137,274,712	92,464,159	584,232,658
Canadian Pacific	1949	363,252,094	342,620,125	14,543,817	29,724,805	134,376,594	45,093,562	79,373,000
	1948	355,249,702	336,830,536	15,890,264	27,393,851	145,511,052	47,795,364	102,037,000
Clinchfield	1949	16,668,785	10,717,198	2,311,928	2,595,193	4,675,067	9,444,819	10,447,856
	1948	19,312,070	11,657,851	2,257,685	4,599,791	551,070	7,906,256	7,855,632
Lehigh & Hudson River	1949	2,741,262	2,107,343	.....	157,837	1,735,923	402,883	None
	1948	3,417,715	2,402,879	.....	368,728	1,803,740	548,209	None
New Orleans, Texas & Mexico	1949	38,209,760	26,728,049	2,840,109	3,187,305	13,118,591	8,256,038	66,855,710
	1948	46,196,955	31,512,651	2,809,148	4,807,743	15,738,691	9,549,350	64,312,394
New York, New Haven & Hartford	1949	144,690,868	117,145,462	6,015,386	2,774,888	41,189,503	42,046,512	211,831,527
	1948	171,391,814	135,370,333	6,519,516	5,799,596	39,924,361	49,668,593	214,164,996
Pennsylvania	1949	848,211,159	729,413,756	78,291,538	12,474,626	283,201,218	136,011,440	693,410,849
	1948	999,982,900	832,845,977	78,528,736	21,429,934	359,241,987	193,540,569	711,561,433
Richmond, Fredericksburg & Potomac	1949	22,214,532	18,296,253	111,266	1,148,038	6,765,222	3,577,840	7,619,071
	1948	25,999,807	19,519,641	85,111	2,760,408	8,489,736	4,780,367	3,990,000
St. Louis-San Francisco	1949	113,117,337	90,557,517	3,618,335	5,598,312	50,925,507	23,418,243	145,906,883
	1948	119,724,070	95,102,268	3,333,877	7,391,096	62,294,026	26,362,784	140,159,478

*On December 31.
‡Income statement for 1949 includes results of operations of Bessemer & Lake Erie for the full year and the Pittsburg, Bessemer & Lake Erie and the Meadville, Conneaut Lake & Linesville for 10 months ended October 31, the effective date of merger of all three companies.
dDeficit.

rebuild 100 cars of the present fleet at a cost of $474,000. A total of 1,354 new refrigerator cars have been acquired by the company since the close of World War II.

PASSENGER CARS

The **Baltimore & Ohio** has purchased two rail Diesel cars (RDC-1) from the Budd Company. The cars will be operated as a two-car train, replacing steam-powered coach trains. They will make an early morning commuter run from Brunswick, Md., to Washington, D. C., and a late afternoon run in the opposite direction over the same route. During the rest of the day, they will make two round trips between Washington and Baltimore. Existing schedules on some of those runs will be improved.

LOCOMOTIVES

The **Chicago, Rock Island & Pacific** has been authorized by its board of directors to purchase 8 4,500-hp. Diesel-electric freight locomotives and 6 2,250-HP. Diesel passenger locomotives.

The **Union Pacific** has ordered three all-purpose type Diesel-electric locomotives from Fairbanks, Morse & Co., Chicago. The units will be of 1,600-hp. each, and will cost $420,000.

SIGNALING

The General Railway Signal Company has received orders for 10 sets of intermittent-inductive train control equipment, to be installed on Diesel-electric locomotives for the **Lehigh Valley.** Fours sets were ordered by the Baldwin Locomotive Works, and six sets by the American Locomotive Company.

COMMUNICATIONS

The Electro-Motive Division of General Motors has placed orders with the Union Switch & Signal Co. for 37 sets of two-channel, two-way FM inductive train communication equipment. This equipment will be installed in Diesel-electric road locomotives which are being built for the **Pennsylvania.**

ABANDONMENTS

Texas & New Orleans.—The I.C.C. has revoked and set aside an order by its Division 4 authorizing this road to abandon 22.6 mi. of main track between Burnet, Tex., and Lampasas. (See *Railway Age* of June 10, page 82.) Although no date or place has been designated, the commission order said that a rehearing in the case will be held. The commission's action was taken after petitions were received from parties protesting abandonment of the T.&N.O. line.

Division 4 of the I.C.C. has **authorized:**

BENNETTSVILLE & CHERAW.—To abandon its entire line, 23.4 mi., between Kollocks, S. C., and Blenheim. Points on the line are adequately served by at least nine trucking companies, and by other trucks owned and operated by shippers, the report by Division 4 said.

ERIE.—To abandon 2.4 mi., the so-called Mead Run branch, between Brockport, Pa., and Shawmut.

NORFOLK SOUTHERN.—To abandon 22.9 mi. of branch line from Mackeys, N. C., to Columbia. The road will abandon 4.3 mi. immediately, but will continue to operate over the remaining 18.6 mi. until December 1. Delay in abandoning the latter segment is to permit the state highway department to accumulate road construction material in connection with a road building program in the area.

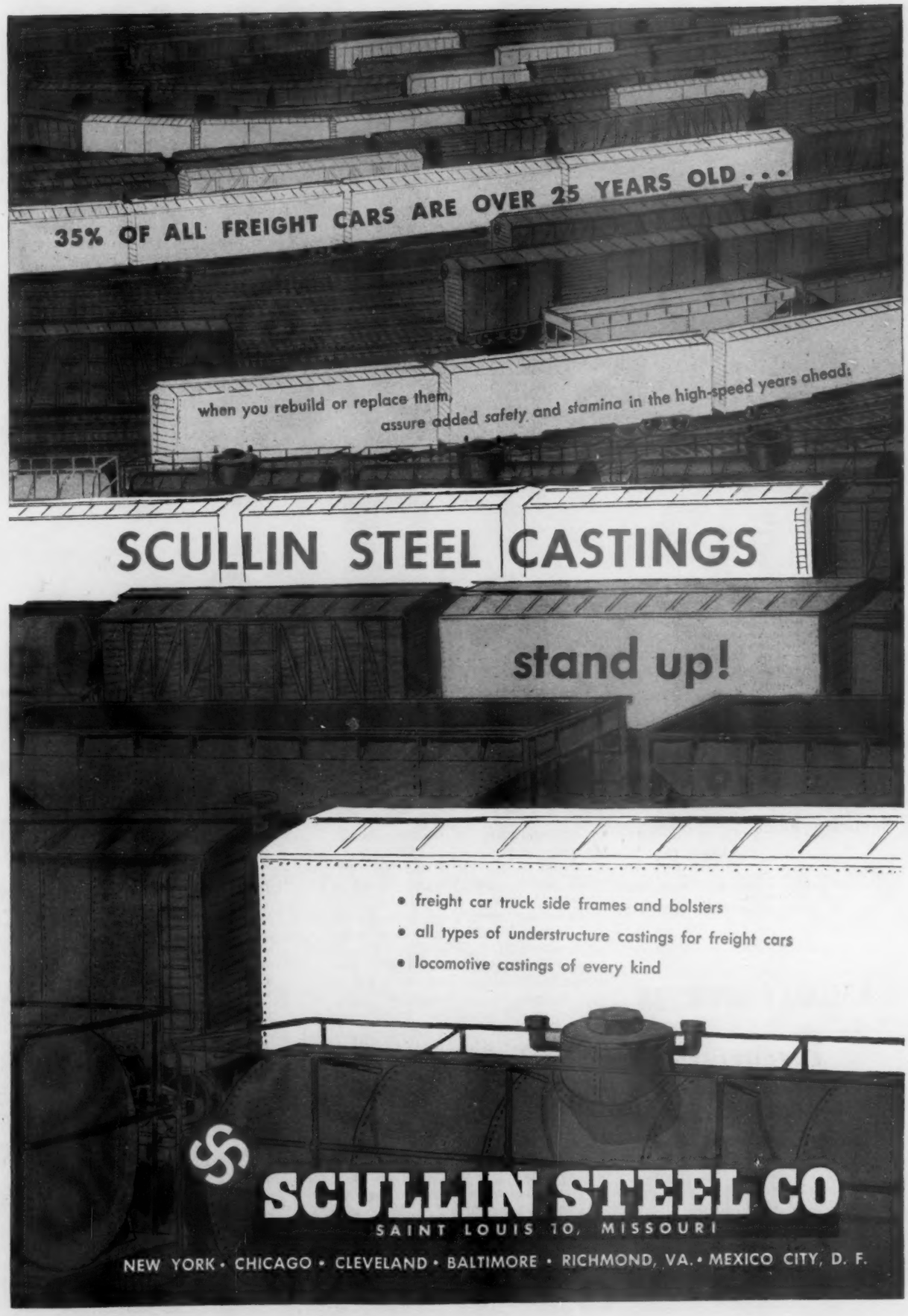
FINANCIAL

Lehigh Valley.—*Merger of Subsidiary.*—This road has applied to the I.C.C. for authority to dissolve its wholly-owned subsidiary, the National Storage Company. National Storage properties include 9.2 mi. of rail line used by the L.V. to serve one of its tidewater piers in New York harbor. Under the merger plan, all N.S. property would pass to the L.V., and National Storage stock would be cancelled.

Pennsylvania-Wabash. — *Control of D.T.&I.*—The I.C.C. has issued an order upholding its finding of last May 2, in which the commission's Division 4 authorized these roads to acquire control of the Detroit, Toledo & Ironton. (See *Railway Age* of May 6, page 62.) The present order makes the earlier finding effective 15 days from August 8.

In effect, the latest I.C.C. action in the case is a denial of petitions filed on June 12 by the New York Central, the Baltimore & Ohio, and the New York, Chicago & St. Louis. These roads asked for reargument and reconsideration of the case and denial of the P.R.R.-Wabash application, or, in the alternative, that they be allowed to participate on an equal basis with the other roads in stock control of the D.T.&I.

On July 25 the commission heard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reargument on whether the case should be reopened on the basis of the protesting roads' contentions. (See *Railway Age* of July 29, page 53.) The present order states, in this respect, that "no showing has been made by them warranting reconsideration or reopening for further hearing. . ."

The order also leaves in effect the previous finding with respect to control of the Springfield Suburban by the P.R.R. and the Erie.

New York, New Haven & Hartford.—*Equipment Trust Certificates.*—The I.C.C. has dismissed an application filed by this road on July 3 for authority to assume liability for $3,000,000 of equipment trust certificates. (See *Railway Age* of July 8, page 112.) In a letter to the commission on July 26 the road requested authority to withdraw its application, stating that neither of the two bids received on the proposed certificates was acceptable.

New Securities

Division 4 of the I.C.C. has **authorized:**

GREAT NORTHERN.—To assume liability for $14,130,000 of equipment trust certificates to finance in part Diesel-electric locomotives and passenger-train equipment costing an estimated $17,688,000. (See *Railway Age* of July 22, page 59.) The certificates will be dated August 1, and will mature in 30 semiannual installments of $471,000 each, beginning February 1, 1951. The commission's report approved a selling price of 99.379 with interest at 2⅜ per cent—the bid of Halsey, Stuart & Co. and 20 associates—which will make the average annual cost of the proceeds approximately 2.47 per cent. The certificates were reoffered to the public at prices yielding from 1.4 to 2.625 per cent, according to maturity.

Dividends Declared

Chicago, Rock Island & Pacific.—Preferred, $1.25, quarterly; common, 75 cents; both payable September 30 to holders of record September 13.

Great Northern.—Non-cumulative preferred, 75 cents, payable September 21 to holders of record August 21.

Security Price Averages

	August 15	Last week	Last year
Average price of 20 representative railway stocks	46.25	46.42	37.95
Average price of 20 representative railway bonds	95.59	95.23	85.81

RAILWAY OFFICERS

EXECUTIVE

The resignation of **Henry F. McCarthy,** traffic vice-president of the New York, New Haven & Hartford was made known on August 14 at his vacation home in Swampscott, Mass. Mr. McCarthy confirmed the report by saying that "A series of policy difference prompted a final break." He said that "No further statement should be made because there are too many New Haven railroad men and women skilled in safe and efficient transportation for me to say anything which would reflect upon their ability and willingness to do their job."

Mr. McCarthy was born at Portsmouth, N. H., on May 11, 1906, and was graduated from Harvard College (B.S., 1927) and Yale University (M.S. Transportation, 1929-1930). He entered railroad service in 1927 in the construction division, engineering department, of the Baltimore & Ohio, where he remained until 1929. From 1930 to 1932 he held various positions in the traffic department of the St. Louis Southwestern, becoming assistant to vice-president-traffic in the latter year. In 1933 Mr. McCarthy was appointed assistant general traffic manager of the same road and one year later became general passenger agent of the Boston & Maine and the Maine Central. From April 1, 1937, to 1942 he was passenger traffic manager of the B.&M. and M.C. and also traffic

Henry F. McCarthy

manager of Boston-Maine Airways and general traffic manager of Northeast Airlines. He was on leave as associate director of the Division of Traffic Movement of the Office of Defense Transportation, at Washington, D. C., from January to May, 1942, and then served as director of that division until June 1, 1944. He also served as director of the Division of Railway Transport. From June 1 to September 1, 1944, Mr. McCarthy was assistant director, O.D.T., in charge of the Railway department. He served as passenger traffic manager of the B.&M. from September 1, to November 17, 1944, and on the latter date became executive assistant to the president of the New Haven. He held that position until February 1, 1948, when he became vice-president of the New Haven. On January 26, 1949, he was appointed vice-president in charge of traffic of that road.

Herbert L. Baldwin, who, since December 1, 1948, has been assistant vice-president in charge of public relations and advertising of the New York, New Haven & Hartford for Massachusetts and Rhode Island, with headquarters at Boston, Mass., has been removed from that post and is no longer connected with the railroad. His removal is one of the latest of a half dozen or more similar changes in department heads on the New Haven since Laurence F. Whittemore resigned from the presidency of the road last December. Other recent changes are reported elsewhere in this issue.

At his home in Winchester, Mass., on August 10 Mr. Baldwin confirmed his separation from the New Haven and said he was informed by the management they did not approve of his "methods and handling."

"When the present management of the New Haven took active charge on December 1, last year, following the resignation of Mr. Whittemore as president, [Mr. Baldwin said] Mr. Dumaine made the following public announcement when he assumed the presidency: 'The policies of improved service which have been established in the past 16 months will continue. We shall be frank with the public regarding the road's affairs.'

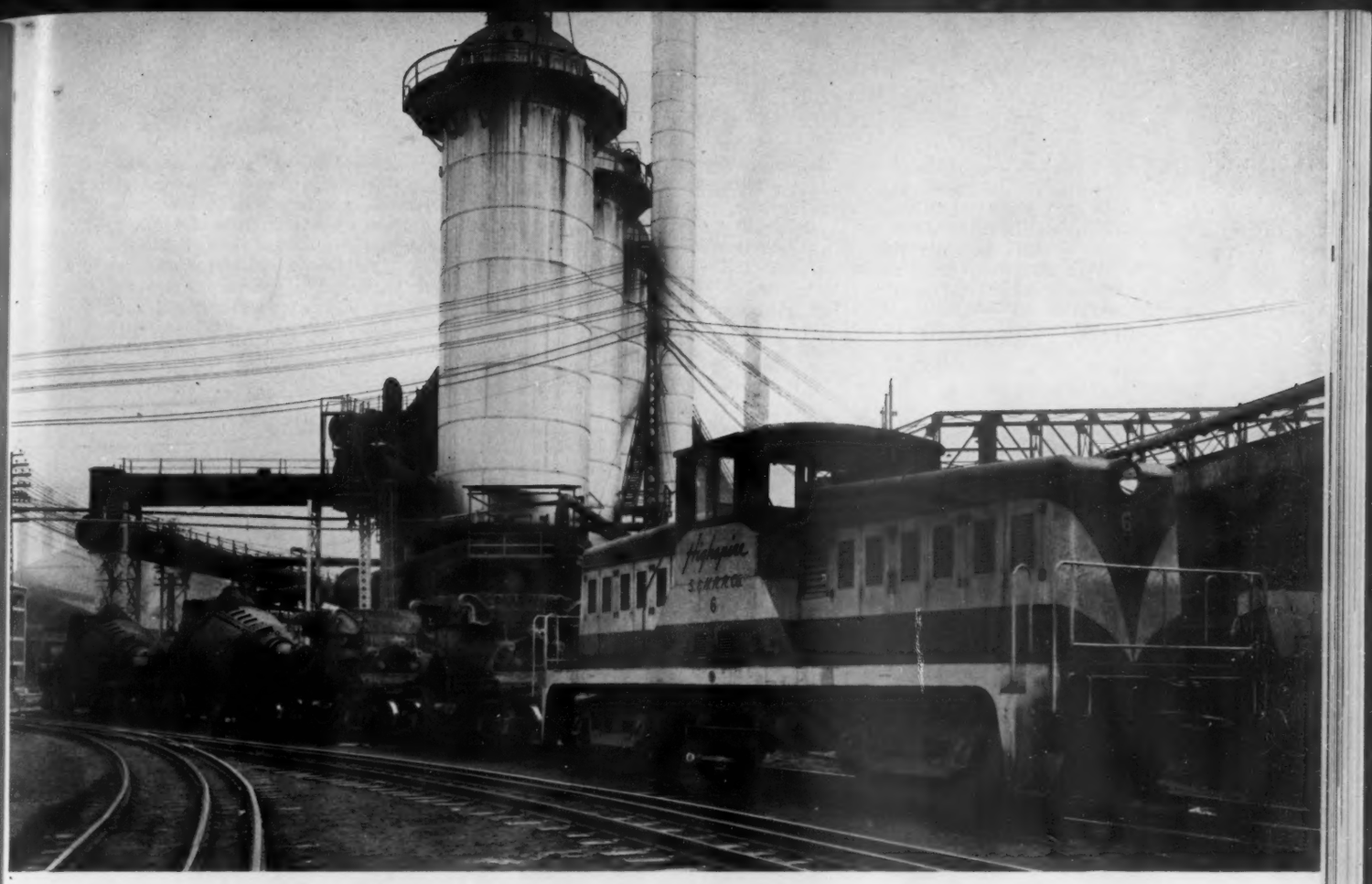
"Shortly after this announcement, I was ordered, despite protests, to cancel all advertising of the New Haven in newspapers, on the radio, on highway billboards and in other media. Since about the first of this year the New Haven has done no paid advertising in the newspapers or on the radio for patronage on the former Old Colony lines; the Shore Line between

Herbert L. Baldwin

Boston and New York; or its other lines, despite the fact passenger revenues are so important to the New Haven as to make it the third largest passenger carrying railroad in the country. This in the face of increasingly active competition and sales promotion by other forms of transportation. The New Haven has curtailed all but a semblance of its other efforts in other generally accepted forms of selling and promotional service. I have disagreed sharply with this policy.

"I have also consistently insisted a public service corporation, especially a railroad, should maintain a policy of complete frankness with the public and the newspapers in the territory it serves. In some 18 years of work in the railroad public relations field in New England with the Boston & Maine, the Maine Central, and, up to this year with the New Haven, I have been allowed to follow that policy. I was not willing to depart from it."

Mr. Baldwin was born at Everett, Mass., on October 3, 1893, and began his career in 1913 as an office boy with the Associated Press, becoming "pony



WHITCOMB Diesel locomotive hauls four cars of molten metal from a blast furnace plant in the Steelton, Pennsylvania, area. This is one of three 70-ton Diesels owned by the Steelton & Highspire Railroad company.

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editor" the following year. He became a district reporter for the Boston Journal in 1915 and joined the Boston Post as staff reporter in 1917, becoming feature writer in 1919 and night city editor in 1922. Mr. Baldwin entered railroad service in 1929 as assistant publicity manager of the B.&M., becoming publicity manager of that road and the Maine Central in 1933. In 1948 he was appointed assistant vice-president of the New Haven.

R. B. Gifford, superintendent of the Toledo, Peoria & Western, has been promoted to assistant to the president, with headquarters remaining at Peoria, Ill.

John C. Ostrom has resigned as passenger traffic manager of the Chesapeake & Ohio to become vice-president and general manager of the Cape Fear and the Fort Benning at Fort Bragg, N. C. Mr. Ostrom was born at Bridgeport, Conn., 39 years ago and joined the C.&O. on January 1, 1947, as special representative in the passenger traffic department. He was promoted to assistant passenger traffic manager on April 1, 1947, and became traffic manager three months later.

Harrison M. Rainie has been elected vice-president—purchases and stores of the Boston & Maine, the Maine Central and the Portland Terminal at Boston, Mass., as announced in the *Railway Age* of July 29. Mr. Rainie started his railroad service on the B.&M. in 1909 in the car department at Concord, N. H. In 1912 he joined the stores department at Concord and two years later transferred to the Billerica, (Mass.) shops. He became storekeeper at Charlestown, Mass., in 1916 and was appointed assistant storekeeper of the Billerica shops the following year. In 1920 Mr. Rainie, became traveling storekeeper of the B. & M. at Boston and two years later returned to the Billerica shops as store-

Harrison M. Rainie

keeper. He was promoted to assistant purchasing agent at Boston in 1924 and advanced to purchasing there in 1933. Mr. Rainie held the latter position until his recent election as vice-president. He is a past president of the New England Railroad Club.

David I. Mackie, general counsel of the Delaware, Lackawanna & Western, has been elected also vice-president, with headquarters as before at New York, as reported in the *Railway Age* of August 12

Harry C. Schmidt, general freight traffic manager of the Delaware, Lackawanna & Western, has been appointed assistant vice-president of traffic at New York, as reported in the *Railway Age* of August 12

J. Roland Formby, whose appointment as assistant to vice-president of the Southern in charge of freight claims, stations and transfers at Chattanooga, Tenn., was reported in the *Railway Age* of July 29, has been manager stations and transfers since 1945

George T. Lane, whose promotion to assistant to vice-president, special service, of the Southern at Washington, D. C., was reported in the *Railway Age* of July 29, has been superintendent, special service, for the Southern since December 1, 1946

FINANCIAL, LEGAL & ACCOUNTING

Arthur F. Stinson is no longer treasurer of the New York, New Haven & Hartford at New Haven, Conn. A biography and photograph of Mr. Stinson were published in the *Railway Age* of November 12, 1949, page 68.

The position of assistant treasurer of the New York, New Haven & Hartford, at Boston, Mass., has been abolished, following the "separation from the company" of **E. L. Kolbenheyer,** who had held that position for some 18 months.

A. F. Graham, whose promotion to auditor of freight traffic of the Chicago, Rock Island & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of July 22, was born on December 6, 1895, at St. Maurice, La., and was graduated from Winnfield (La.) High School in June, 1912. Mr. Graham later continued his education through extension studies at Columbia University and evening classes at Texas Christian University and the University of Chicago. He entered railroad service in 1912, while still attending school, with the Louisiana Railway & Navigation Company (now part of the Louisiana & Arkansas) as a station helper at St. Maurice. Subsequently he served successively in various positions for one-year periods with the Louisiana & North West at Homer, La., the Midland Valley at Muskogee, Okla., the Missouri, Oklahoma & Gulf (now Kansas, Oklahoma

& Gulf) at Muskogee, and the International-Great Northern (part of the Missouri Pacific Lines) at Houston, Tex., and Palestine. In October, 1919, he joined the Chicago, Rock Island & Gulf, (now part of the C. R. I. & P.) in the auditor's office at Fort Worth, Tex., and during the next 20 years held the positions successively at that point of head clerk of freight accounts, chief disbursements and general accounts clerk, and chief clerk to auditor. Mr. Graham was later transferred to Chicago, where he served for 10 years, first as traveling auditor and later on special assignments in the office of the assistant general auditor prior to his appointment in February, 1949, as assistant auditor of freight traffic at that point.

George H. Fernald, counsel of the Boston & Albany at Boston, Mass., will retire on August 31 under the company's pension system, after 43 years service. **William L. Parsons,** assistant counsel, has been appointed general attorney in charge of the law department, with headquarters as before at Boston, effective September 1. Mr. Fernald was born at Worcester, Mass., on August 3, 1882, and attended Harvard College (A.B.1903) and Harvard Law School (LL.B.1905). From 1905 to 1907 Mr. Fernald engaged in general law practice with Hallowell & Hammond at Boston and in the latter year entered railroad service as assistant counsel of the B.&A., serving in that capacity until 1916. He was promoted to counsel in 1916.

J. O. Yates has been appointed auditor of disbursements of the Chesapeake & Ohio at Huntington, W. Va., as announced in the *Railway Age* of July 29. Mr. Yates was born at Richmond, Va., 52 years ago and entered the service of the C.&O. at Richmond in 1916. In 1932 he became chief clerk in the timekeeping bureau at Huntington and later that year was promoted to assistant supervisor of the central timekeeping and material bureau. He became supervisor of material accounts in 1941 and manager of the central timekeeping and material bureau in 1942. Mr. Yates was appointed assistant auditor of disbursements in 1947, which position he held until his recent appointment.

OPERATING

W. Wallace, division superintendent of the Delaware & Hudson at Oneonta, N. Y., has been appointed general superintendent of transportation at Albany, N. Y., succeeding **H. F. Burch,** who will retire on August 31 at his own request, after 42 years of service. Mr. Burch was born at Louisville, Ky., on December 29, 1884, and entered railroad service in 1897 as a clerk with the Louisville & Nashville at Louisville. He served in that capacity in various departments until 1907 when he joined the D.&H. as yardmaster, subsequently becoming assistant trainmaster, chief clerk to general superintendent transportation, general superintendent of the Greenwich & Johnsonville (D.&H.), assistant to general manager, division superintendent and assistant general manager. Mr. Burch became general superintendent transportation in 1945.

TRAFFIC

H. W. Quinlan, passenger traffic manager of the New York, New Haven & Hartford at Boston, Mass., has retired. The office of traffic vice-president has been discontinued. **E. V. Murphy,** general freight sales manager, has been appointed general freight traffic manager, with headquarters as before at Boston, and **C. E. Williams,** assistant passenger traffic manager at New Haven, Conn., has been appointed general passenger traffic manager at Boston, both reporting to the president.

Mr. Quinlan was born at Somerville, Mass., on April 6, 1900, and was graduated from Harvard University (A.B., 1922) and Harvard Graduate School of Business Administration (M.B.A., 1925). He served in the United States Army from September to December, 1918. Mr. Quinlan entered railroad service in September, 1925, in the accounting department of

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the Boston & Maine, where he remained until December 31, 1927. He joined the New Haven in January,

H. W. Quinlan

1928, as assistant statistician and was appointed chief clerk in the dining car department in July, 1932; assistant superintendent dining cars in January, 1934; superintendent dining car service at Boston in April, 1934, and manager dining car service on July 1, 1943. On October 1, 1945, Mr. Quinlan was appointed assistant manager personnel at New Haven and on July 1, 1946, became passenger traffic manager at Boston.

Mr. Williams was born at Stormville, N. Y., on October 12, 1890. He took a correspondence course in survey and mapping; had a private tutor for four years evenings; studied commercial law at Suffolk Law School in 1923; and attended the Bentley School

C. E. Williams

of Accounting at Boston during 1924. Mr. Williams entered railroad service in May, 1907, as a rodman in the engineering department of the New Haven, later serving as inspector and transitman on construction and location engineering until 1916. He held various positions from resident engineer to assistant valuation engineer from 1916 to 1933, with the exception of 1923-1924 when he served as assistant corporate engineer, United States Railroad Administration settlement of the New Haven. In 1933 Mr. Williams became engineering assistant in the executive department and in 1935 was appointed district passenger agent for Connecticut and Western Massachusetts. He was appointed assistant passenger traffic manager in charge of sales in March, 1946.

The St. Louis-San Francisco has appointed **W. Ray Keeley,** city ticket agent at Oklahoma City, Okla., as general agent, passenger department, at Los Angeles, Cal., a newly created position.

Gordon E. Smith has been appointed freight traffic manager of the Central region of the Canadian National at Toronto, Ont., as reported in *Railway Age* of July 15. Mr. Smith was born at Grand Valley, Ont., and began his career in the transportation department of the Grand Trunk at Walkerton, Ont., in 1908 as a warehouseman. After serving as agent at Whitechurch, Ont., Wiarton and Hespeler, he transferred to the traffic department at Toronto in 1916 as soliciting freight agent. Mr. Smith became traveling freight agent in the following year and district freight agent in 1930. He was promoted to division freight and district passenger agent at North Bay, Ont., in 1940 and eleven months later returned to Toronto as division freight agent. In June, 1946, he was appointed general freight agent, which position he held until his recent appointment.

Gordon E. Smith

MECHANICAL

E. L. Cook, terminal trainmaster of the Seaboard Air Line at Richmond, Va., has been appointed mechanical engineer at Norfolk, Va., succeeding **L.**

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STAMFORD, CONNECTICUT

A. Porter, who has been appointed office assistant at Norfolk. **C. C. Higgins,** general foreman car department at Howells, Ga., has been appointed shop superintendent car department at Jacksonville, Fla., succeeding **L. W. McAlpine,** who has been transferred to Portsmouth, Va., to succeed **S. I. Wade,** assigned to other duties.

SPECIAL

H. Granville Tilghman has been appointed special representative in the public relations department of the Seaboard Air Line at Norfolk, Va.

Steve Canton, who formerly handled rail publicity for the Railway Express Agency, has been appointed air express publicity representative at New York, succeeding **W. J. Cleary,** who has been named editor of publications.

Frank L. Smith, assisant superintendent, special service department, of the Southern, has been promoted to superintendent, special service, with headquarters as before at Washington, D. C., succeeding **George T. Lane,** whose appointment as assistant to vice-president, special service, was reported in the *Railway Age* of July 29.

Leo P. Kenneally has been appointed director of publicity of the New York, New Haven & Hartford at Boston, Mass., with system-wide jurisdiction.

OBITUARY

Ralph W. Anderson, former superintendent of motive power for the Chicago, Milwaukee, St. Paul & Pacific, died at the Bethesda hospital, Bethesda, Md., on June 17, after a short illness. Mr. Anderson had been retired from active service since 1941.

Herman F. Bohr, president of the Tennessee, Alabama & Georgia, at Chattanooga, Tenn., died on August 14 at the age of 66.

William J. Mullin, 87, who retired in 1928 as general traffic manager of the Delaware & Hudson at Albany, N. Y., died on August 9 at the Orange Memorial hospital, Orlando, Fla.

Charles Hiram Nutt, associate auditor of the Gulf, Mobile & Ohio at Mobile, Ala., died on July 24 in that city. Mr. Nutt was born at Nashua, N. H., on August 24, 1872, and entered railroad service on May 1, 1891, in the freight accounting department of the Iowa Central (now part of the Minneapolis & St. Louis). He subsequently served with the Toledo, St. Louis & Western (now New York, Chicago & St. Louis), the Chicago & Alton, and the latter's successor, the Alton. When the Alton was merged with the G.M.&O. as of June 1, 1947, Mr. Nutt, who was auditor freight accounts of the Alton, became associate auditor, receipts department, G.M.&O.

C-O-TWO ANNOUNCES

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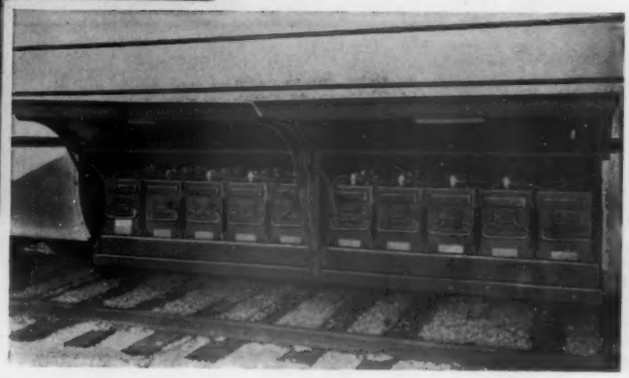
REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1950

Name of road		Av. mileage operated during period	Operating Revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total				1950	1949
Akron, Canton & Youngstown	June	171	410,193	86	423,738	61,595	38,936	30,061	120,038	274,515	64.8	149,223	59,470	80,700	34,111
	6 mos.	171	2,296,293	442	2,367,153	360,528	243,319	175,750	712,440	1,615,985	68.3	751,168	306,899	403,310	317,652
Atchison, Topeka & Santa Fe System	June	13,073	35,163,620	4,275,573	43,080,600	6,436,869	7,258,743	1,073,889	14,053,800	30,701,699	71.3	12,378,901	6,035,494	6,025,375	6,203,310
	6 mos.	13,073	180,430,364	19,371,419	219,258,014	34,116,786	42,023,113	5,879,029	72,619,674	164,517,836	75.0	54,740,178	28,400,331	26,545,613	21,957,248
Atlanta & St. Andrews Bay	June	82	227,187	1,512	233,783	32,714	18,923	7,449	50,595	121,880	52.1	111,903	42,727	47,963	10,315
	6 mos.	82	1,402,314	6,735	1,446,312	190,486	112,725	43,778	311,291	734,136	50.8	712,176	277,658	302,514	115,802
Atlanta & West Point	June	93	264,058	40,905	342,338	39,378	49,764	14,807	146,718	270,845	79.1	71,493	34,432	17,793	—7,096
	6 mos.	93	1,524,106	240,789	1,988,678	223,582	289,735	82,779	920,495	1,647,048	82.8	341,630	171,808	48,015	—8,850
Western of Alabama	June	133	251,393	39,224	317,844	47,821	55,625	15,091	130,842	267,313	84.1	50,531	31,401	18,614	8,193
	6 mos.	133	1,549,088	235,540	1,960,262	277,304	328,951	85,313	823,626	1,637,144	83.5	323,118	191,810	114,952	101,363
Atlantic & Danville	June	205	110,940	.....	111,969	24,000	6,954	7,340	35,481	84,037	75.1	27,932	7,810	3,018	.....
	6 mos.	205	655,834	.....	666,601	143,924	48,418	45,439	214,606	512,990	77.0	153,611	41,399	37,823	.....
Atlantic Coast Line	June	5,500	8,460,925	959,282	10,163,181	2,038,050	1,951,259	300,867	3,992,995	8,769,331	86.3	1,393,850	900,000	366,904	—142,000
	6 mos.	5,518	52,449,831	9,019,609	66,584,515	11,518,082	10,816,199	1,757,308	25,774,022	52,985,586	79.6	13,598,929	6,850,000	5,457,328	4,373,928
Charleston & Western Carolina	June	343	374,790	1,589	384,919	76,149	60,338	16,394	153,014	316,548	82.2	68,371	35,000	24,220	—34,939
	6 mos.	343	2,410,513	12,649	2,475,016	446,926	351,592	91,955	957,440	1,909,584	77.2	565,432	245,000	268,818	43,419
Baltimore & Ohio	June	6,202	29,881,678	2,094,636	33,942,641	4,679,324	7,146,869	812,222	13,312,291	27,269,985	80.3	6,672,656	2,977,368	3,089,184	2,452,477
	6 mos.	6,202	164,553,116	10,202,883	185,008,900	22,718,925	39,579,906	4,643,241	76,435,882	151,138,787	81.7	33,870,113	14,330,182	15,989,449	17,515,680
Staten Island Rapid Transit	June	29	196,262	52,553	252,685	44,083	33,887	1,303	127,485	235,590	93.2	17,095	32,641	—27,242	—30,161
	6 mos.	29	1,057,905	287,113	1,366,422	245,951	225,815	9,129	743,747	1,357,839	99.4	8,583	195,732	—276,276	—287,145
Bangor & Aroostook	June	602	681,629	29,293	753,072	182,105	142,622	10,682	205,279	588,641	78.2	164,431	107,210	95,883	—3,482
	6 mos.	602	7,090,183	170,439	7,471,232	1,090,451	1,046,446	81,720	1,708,032	4,220,265	56.5	3,250,967	1,302,843	1,711,282	1,901,714
Bessemer & Lake Erie	June	212	2,759,066	928	2,782,001	195,858	795,943	16,567	561,872	1,654,398	59.5	1,127,603	575,283	705,759	647,733
	6 mos.	212	9,373,456	4,768	9,489,961	1,002,378	3,365,700	95,041	2,314,824	7,288,209	76.8	2,201,752	1,699,356	1,848,170	2,501,345
Boston & Maine	June	1,711	5,578,493	1,004,795	7,243,337	1,200,259	1,055,980	105,680	2,761,177	5,412,313	74.7	1,831,024	761,557	708,318	344,580
	6 mos.	1,712	31,276,131	5,422,034	40,309,190	6,762,836	6,263,567	645,713	17,324,757	32,806,313	81.4	7,502,877	3,295,428	2,121,478	2,607,994
Burlington-Rock Island	June	Included in Chicago, Rock Island and Pacific and Ft. Worth & Denver City—Joint Lease													
	6 mos.														
Cambria & Indiana	June	35.38	149,104	.....	149,155	17,356	82,945	826	24,953	135,645	90.94	13,510	61,804	64,874	40,403
	6 mos.	35.38	657,861	.....	658,107	81,055	472,648	5,235	123,866	739,360	112.35	—81,253	267,407	245,289	358,211
Canadian Pacific Lines in Maine	June	234	238,708	36,728	301,415	157,987	63,538	6,460	141,078	380,216	126.1	—78,801	24,780	—149,008	—163,430
	6 mos.	234	2,631,210	217,796	2,987,436	544,625	462,497	40,762	1,185,389	2,300,357	77.0	687,079	150,526	132,766	380,362
Canadian Pacific Lines in Vermont	June	90	165,966	9,084	191,663	68,640	22,719	5,333	104,220	207,573	108.3	—15,910	11,787	—80,394	—99,827
	6 mos.	90	906,785	71,976	1,076,304	349,607	151,264	30,537	630,296	1,201,778	111.7	—125,474	72,174	—494,399	—708,418
Central of Georgia	June	1,815	2,604,222	183,090	3,023,163	510,808	555,451	111,437	1,401,952	2,751,285	91.0	271,878	220,883	42,195	—120,514
	6 mos.	1,815	15,709,374	1,229,764	18,357,852	3,077,638	3,061,439	671,075	8,397,155	16,222,773	88.4	2,135,079	1,308,033	501,483	178,745
Central of New Jersey	June	410	2,628,109	501,065	3,333,742	493,184	529,146	61,897	1,617,329	2,866,162	86.0	467,580	382,711	—249,144	—279,853
	6 mos.	410	14,390,145	2,818,076	18,303,690	2,686,101	3,115,386	320,216	9,424,744	16,507,941	90.2	1,795,749	2,200,179	—2,268,923	—2,471,735
Central of Pennsylvania	June	212	1,683,649	9,070	1,727,270	183,382	350,203	28,042	461,453	1,065,920	61.7	661,350	66,197	854,401	776,069
	6 mos.	212	8,944,749	52,573	9,191,210	846,527	1,961,343	143,086	2,697,025	5,885,187	64.0	3,306,023	388,539	4,657,397	4,415,216
Central Vermont	June	422	749,000	50,000	850,000	190,951	135,601	15,466	345,195	723,019	85.1	126,981	58,750	6,515	50,250
	6 mos.	422	4,333,000	294,000	4,943,000	854,367	902,674	91,592	2,089,192	4,157,429	84.1	785,571	266,720	168,451	47,855
Chesapeake & Ohio	June	5,119	25,418,330	825,239	27,483,981	3,678,252	4,833,079	513,459	8,472,736	18,597,887	67.7	8,886,094	4,162,109	4,946,605	2,964,526
	6 mos.	5,118	135,940,413	3,414,065	144,447,717	20,792,395	28,562,134	2,995,500	47,843,295	106,262,222	73.6	38,185,495	19,365,100	20,520,417	21,449,807
Chicago & Eastern Illinois	June	886	1,775,334	231,973	2,229,689	316,792	349,848	93,593	899,777	1,786,452	80.1	443,237	93,400	159,876	21,445
	6 mos.	896	10,861,790	1,289,252	13,516,573	1,715,200	2,024,064	568,373	5,549,466	10,599,598	78.4	2,916,975	782,500	1,240,956	357,433
Chicago & Illinois Midland	June	130	1,089,700	238	1,100,522	91,567	131,693	21,434	217,962	496,224	45.1	604,298	232,547	353,459	107,497
	6 mos.	130	4,699,481	1,758	4,776,925	493,784	725,106	147,209	1,190,432	2,774,356	58.1	2,002,569	777,844	1,149,777	784,206
Chicago & North Western	June	8,001	12,184,963	2,043,710	15,781,065	2,798,364	3,022,953	308,558	6,932,636	13,824,229	87.6	1,956,836	1,067,976	584,548	486,918
	6 mos.	8,038	65,096,672	9,403,057	83,301,983	14,030,548	16,975,394	1,823,225	39,594,341	76,709,356	92.1	6,592,627	6,204,697	—1,307,373	—4,886,294
Chicago, Burlington & Quincy	June	8,831	14,509,987	1,733,983	17,991,567	3,893,048	3,035,550	406,175	6,201,003	14,234,689	79.1	3,756,878	1,549,728	1,836,832	881,732
	6 mos.	8,855	85,173,095	7,711,258	102,613,336	15,355,195	17,105,342	2,501,048	37,984,036	77,006,878	75.0	25,606,458	12,244,500	10,937,280	6,345,742
Chicago Great Western	June	1,476	2,133,380	7,495	2,251,943	525,763	280,080	93,158	718,592	1,686,802	74.9	565,141	177,894	173,918	171,964
	6 mos.	1,479	14,639,309	91,498	15,556,196	3,289,381	1,809,702	580,795	5,017,168	11,118,974	71.5	4,437,222	1,400,230	1,616,973	1,178,238
Chicago, Indianapolis & Louisville	June	541	1,404,356	69,920	1,578,979	288,675	241,952	80,346	535,419	1,238,511	78.4	340,468	117,251	136,574	93,149
	6 mos.	541	8,150,225	482,129	9,166,769	1,673,462	1,384,981	450,970	3,222,388	7,256,640	79.2	1,910,129	621,486	748,502	317,467
Chicago, Milwaukee, St. Paul & Pacific	June	10,671	16,806,424	1,797,814	20,608,497	3,341,006	3,640,875	436,107	8,185,380	16,476,160	79.9	4,132,337	1,635,000	2,079,535	1,797,728
	6 mos.	10,671	92,505,939	7,707,063	110,786,733	15,871,417	22,301,177	2,535,018	50,407,612	96,345,816	87.0	14,440,917	8,276,000	3,764,384	1,153,549
Chicago, Rock Island & Pacific	June	7,619	10,324,471	1,360,045	12,697,669	1,916,362	2,184,416	419,149	4,633,490	9,783,781	77.1	2,913,888	1,373,391	1,073,871	2,071,338
	6 mos.	7,619	70,449,847	8,312,084	85,127,036	10,457,269	14,426,219	2,642,523	32,322,195	63,933,573	75.1	21,193,463	9,099,535	7,773,630	8,088,558
Chicago, St. Paul, Minn. & Omaha	June	1,617	2,243,586	193,081	2,643,299	452,809	494,067	55,319	1,244,665	2,273,091	86.0	370,208	181,529	40,153	—181,956
	6 mos.	1,617	12,204,379	963,651	14,291,206	2,301,536	2,169,990	332,923	7,532,262	13,021,793	91.1	1,269,413	1,044,563	—372,523	—924,652
Clinchfield	June	317	1,657,205	2,196	1,670,046	234,582	318,375	35,400	370,319	991,789	59.4	678,257	164,814	647,488	455,575
	6 mos.	317	9,760,636	9,545	9,825,264	1,384,621	1,740,410	203,701	2,320,521	5,827,616	59.3	3,997,648	976,890	3,629,621	2,568,612

Table is continued on next left-hand page

Passenger comfort counts on RF&P's Old Dominion. That's why an Edison 88-cell A14H battery protects the 110-volt system which powers fluorescent lights, air conditioning, water coolers, kitchen appliances.



these are the

TRENDS

in the new passenger cars . . .

- ✓ **Higher Illumination Standards**
- ✓ **More Electrical Conveniences**
- ✓ **Better Air Conditioning**
- ✓ **More Air Circulation**
- ✓ **Improved Humidity Control**

THEY ALL ADD UP to higher electrical loads and increased battery capacities for adequate operating reserve. That puts lightweight EDISON Nickel-Iron-Alkaline Storage Batteries in a position to save more weight per car than ever before!

The same trends also add up to a greater need for uninterrupted electric power during non-generating time on the road, thus placing greater emphasis on EDISON dependability.

If you have not purchased EDISON Batteries recently, get an up-to-date quotation from us. You'll probably find the price lower than you think, and annual cost (thanks to their well-known long life) the lowest obtainable.

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STORAGE BATTERIES

Read STORAGE BATTERY POWER for information on new developments in railway cars and their power systems. Ask your EDISON district office for your free subscription.

EDISON STORAGE BATTERY DIVISION OF THOMAS A. EDISON, INCORPORATED, WEST ORANGE, NEW JERSEY

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1950

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
			Freight	Passenger	Total (inc. misc.)	Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total				1950	1949
Colorado & Southern	June	740	925,279	52,038	1,062,236	176,749	138,289	25,603	383,812	773,061	72.8	289,175	171,590	73,817	58,093
	6 mos.	743	5,148,704	357,941	5,983,979	887,069	958,978	149,376	2,207,658	4,493,761	75.1	1,490,218	783,762	405,915	352,134
Ft. Worth & Denver City	June	1,130	1,443,538	149,483	1,704,297	222,553	204,079	68,755	592,775	1,170,484	68.7	533,813	164,507	243,404	296,570
	6 mos.	940	7,502,054	604,009	8,697,915	1,253,394	1,094,351	289,229	2,795,609	5,862,787	67.4	2,835,128	953,522	1,386,842	764,086
Colorado & Wyoming	June	41	126,065	.....	198,936	17,316	18,480	—1,071	76,428	121,151	60.8	77,785	42,687	32,549	14,779
	6 mos.	41	619,417	.....	1,017,837	77,463	119,923	4,500	445,637	702,906	65.5	368,931	215,443	151,981	247,922
Columbus & Greenville	June	168	146,047	.....	152,831	43,021	27,161	4,563	48,361	140,775	92.1	12,056	12,561	2,570	2,996
	6 mos.	168	919,373	—183	954,851	217,836	178,650	29,252	292,034	821,895	86.1	132,955	97,319	47,405	77,672
Delaware & Hudson	June	794	4,047,086	128,246	4,309,532	782,736	1,006,755	92,212	1,707,428	3,759,391	87.2	550,141	346,248	242,472	226,072
	6 mos.	794	24,034,699	857,523	25,562,899	3,290,850	5,744,631	437,988	10,346,091	20,849,815	81.6	4,713,084	2,535,228	2,254,392	1,755,958
Delaware, Lackawanna & Western	June	966	5,702,286	823,991	7,101,452	917,494	1,172,682	155,555	2,976,817	5,476,641	77.1	1,624,811	776,184	817,715	501,766
	6 mos.	967	30,166,888	4,738,430	37,990,579	4,635,289	6,706,147	945,620	17,190,039	30,878,878	81.3	7,111,701	3,705,143	3,423,413	3,208,292
Denver & Rio Grande Western	June	2,413	3,898,928	247,269	4,362,666	783,765	847,133	145,603	1,514,186	3,516,498	80.6	846,168	434,714	458,999	455,690
	6 mos.	2,413	25,569,460	1,254,990	27,972,945	3,793,660	5,747,592	868,653	10,452,122	22,309,232	79.8	5,663,713	2,812,262	2,985,081	3,917,881
Detroit & Mackinac	June	232	201,950	611	210,472	30,000	21,909	1,857	34,109	95,351	45.3	115,121	42,851	65,793	33,625
	6 mos.	232	864,121	3,632	913,103	180,000	117,922	10,593	184,024	539,466	59.1	373,637	149,843	225,740	170,284
Detroit & Toledo Shore Line	June	50	531,869	.....	534,054	62,158	49,705	13,074	178,242	314,809	58.9	219,245	63,336	71,035	40,746
	6 mos.	50	3,704,835	.....	3,721,072	383,585	292,181	79,571	1,124,736	1,947,247	52.3	1,773,825	542,979	611,727	569,127
Detroit, Toledo & Ironton	June	464	1,474,266	486	1,527,515	162,417	268,924	24,991	401,548	897,103	58.7	630,412	233,623	318,086	107,620
	6 mos.	464	8,659,268	1,987	8,890,708	904,357	1,474,120	145,926	2,346,364	5,094,149	57.3	3,795,559	1,405,473	1,977,698	1,640,157
Duluth, Missabe & Iron Range	June	563	5,354,501	2,074	6,347,522	587,287	513,125	7,017	1,401,855	2,576,646	40.6	3,770,876	731,644	3,040,391	1,785,391
	6 mos.	564	11,483,512	8,259	13,537,815	3,170,934	3,236,671	45,708	4,674,149	11,526,455	85.1	2,011,360	1,440,318	479,518	2,943,077
Duluth, South Shore & Atlantic	June	539	608,358	7,452	660,005	127,729	100,653	16,881	198,739	459,649	69.6	200,355	26,115	162,196	—30,153
	6 mos.	539	2,999,232	39,109	3,201,450	633,858	599,503	107,743	1,177,820	2,616,874	81.7	584,576	145,645	307,063	—101,298
Duluth, Winnipeg & Pacific	June	175	396,000	2,200	403,400	69,525	45,768	4,139	144,777	269,995	66.9	133,405	30,885	70,812	—52,440
	6 mos.	175	2,011,000	8,800	2,045,500	355,852	271,689	24,830	897,962	1,587,315	77.6	458,185	161,657	34,619	—196,173
Elgin, Joliet & Eastern	June	238	3,561,460	8	4,255,731	286,233	524,867	26,953	1,251,600	2,200,250	51.7	2,055,481	783,906	902,518	434,619
	6 mos.	238	19,657,206	12	23,794,768	1,460,640	3,114,061	160,227	7,608,136	13,008,654	54.7	10,786,114	4,135,603	4,639,134	4,331,900
Erie	June	2,231	12,091,661	654,887	13,759,868	1,956,534	1,977,185	313,624	5,542,296	10,359,549	75.3	3,400,319	1,490,623	1,527,515	679,222
	6 mos.	2,231	68,391,321	3,396,372	76,440,559	8,962,708	12,050,429	1,874,405	31,559,514	57,887,084	75.7	18,553,475	8,137,774	8,423,750	5,292,737
Florida East Coast	June	571	1,210,064	286,417	1,618,326	434,350	364,676	62,171	647,545	1,636,143	101.1	—17,817	Cr 100,303	—25,219	—399,638
	6 mos.	571	10,109,245	3,950,421	15,351,736	2,471,594	2,255,725	381,811	5,235,230	11,395,464	74.2	3,956,272	918,243	2,151,698	1,289,227
Georgia Railroad	June	326	584,004	23,321	651,936	103,604	106,819	28,262	272,928	539,630	82.8	111,766	34,077	104,827	52,735
	6 mos.	326	3,557,867	131,898	3,951,982	552,606	626,481	161,014	1,748,997	3,281,479	83.0	670,503	202,344	581,880	383,566
Georgia & Florida	June	408	254,732	28	259,479	64,602	34,888	15,112	99,879	225,939	87.1	33,540	15,915	781	7,667
	6 mos.	408	1,316,067	—35	1,333,343	366,471	196,188	89,154	579,962	1,300,796	97.6	32,547	94,341	—138,998	—224,585
Grand Trunk Western	June	971	4,172,000	187,000	4,649,000	774,518	736,924	65,788	1,957,190	3,680,375	79.2	968,625	159,935	487,548	203,960
	6 mos.	971	23,991,000	993,000	26,672,000	3,674,863	4,499,102	391,850	11,188,341	20,654,160	77.4	6,017,840	1,403,999	3,445,774	1,570,908
Canadian Natl. Lines in New Engl.	June	172	155,000	7,000	185,000	73,254	47,142	2,693	109,618	243,072	131.4	—58,072	22,478	—113,774	—146,591
	6 mos.	172	921,000	25,800	1,117,000	353,990	273,413	16,517	717,593	1,427,443	127.8	—310,443	134,858	—564,460	—787,915
Great Northern	June	8,316	15,300,860	1,054,908	17,857,772	3,848,130	2,673,841	342,418	5,607,293	13,124,208	73.5	4,733,564	1,576,957	2,949,018	3,470,659
	6 mos.	8,316	76,265,098	4,641,084	87,751,109	19,542,566	18,611,527	1,954,689	35,435,642	79,303,776	90.4	8,447,333	8,773,114	—1,980,376	4,037,075
Green Bay & Western	June	224	310,988	.....	317,742	79,219	35,034	19,274	76,322	221,973	69.9	95,769	40,198	41,356	—2,004
	6 mos.	224	1,776,088	.....	1,811,921	370,983	197,371	114,164	473,632	1,235,627	68.2	576,294	226,070	261,621	81,153
Gulf, Mobile & Ohio	June	2,898	5,241,839	422,348	6,080,770	959,043	1,151,333	225,765	1,896,600	4,532,098	74.5	1,548,672	658,387	598,955	495,135
	6 mos.	2,898	30,302,048	2,252,173	35,062,752	5,720,767	6,636,972	1,349,133	11,337,365	26,823,978	76.5	8,238,774	3,381,633	3,234,468	3,274,329
Illinois Central	June	6,543	17,816,201	1,738,007	21,711,422	4,116,108	4,071,100	408,046	7,640,629	17,207,173	79.3	4,504,249	2,422,340	1,947,434	1,481,837
	6 mos.	6,543	103,461,030	9,890,595	125,801,968	20,040,397	22,544,983	2,615,662	46,904,691	97,587,345	77.6	28,214,622	14,679,842	12,102,260	11,395,375
Illinois Terminal	June	463	830,862	87,518	1,036,323	142,194	128,586	36,790	388,426	742,178	71.6	294,145	130,378	128,603	97,208
	6 mos.	463	4,420,992	546,734	5,584,528	841,536	776,005	219,769	2,305,889	4,418,871	79.1	1,165,657	586,275	438,148	605,534
Kansas City Southern	June	891	2,599,255	116,799	2,944,649	281,450	402,738	86,169	907,403	1,786,906	60.7	1,157,743	430,000	572,117	667,402
	6 mos.	891	16,457,093	569,676	18,479,634	1,630,134	2,337,858	537,304	5,529,282	10,698,944	57.9	7,780,690	2,749,000	3,956,344	4,570,664
Kansas, Oklahoma & Gulf	June	327	402,716	603	407,454	59,473	34,248	17,151	110,150	240,268	59.0	167,186	76,473	68,068	67,971
	6 mos.	327	2,438,700	3,562	2,463,957	287,048	215,233	102,161	659,853	1,375,575	55.8	1,088,382	487,458	444,606	539,043
Lake Superior & Ishpeming	June	156	452,043	39	565,831	65,368	40,668	1,754	107,771	223,121	39.4	342,710	69,280	274,493	248,560
	6 mos.	156	1,009,449	220	1,226,083	267,195	283,708	10,788	375,725	992,196	80.9	233,887	217,585	48,878	329,278
Lehigh & Hudson River	June	96	247,626	.....	248,201	40,275	22,612	9,306	92,183	173,032	69.7	75,169	29,260	24,965	12,340
	6 mos.	96	1,401,448	.....	1,403,903	207,826	152,295	54,071	546,065	1,013,985	72.2	389,918	153,305	109,364	68,394
Lehigh & New England	June	191	734,735	.....	740,500	67,201	103,023	12,215	168,296	379,984	51.3	360,516	167,394	228,862	136,931
	6 mos.	191	3,669,137	.....	3,697,623	482,644	664,367	69,766	947,479	2,346,050	63.4	1,351,573	696,928	895,446	597,187
Lehigh Valley	June	1,251	5,499,895	287,477	6,029,223	826,189	1,045,663	134,706	2,361,217	4,590,460	76.1	1,438,763	676,788	620,568	489,787
	6 mos.	1,252	30,041,783	1,735,068	33,230,678	4,211,926	5,899,826	803,276	13,836,505	26,120,216	78.6	7,110,462	3,019,231	3,179,590	3,010,989
Long Island	June	365	1,300,823	2,923,953	4,416,718	561,034	749,435	33,440	2,042,158	3,521,723	79.7	894,995	460,925	142,512	350,296
	6 mos.	365	6,382,916	15,728,974	23,191,632	3,435,709	4,380,666	105,962	12,349,707	20,914,912	90.2	2,276,720	2,742,732	—2,062,265	—2,971,657

Table is continued on next left-hand page

No place for Rip Van Winkles

TWENTY years bring changes--changes far greater in our fast-moving world than ever happened in Rip Van Winkle's day.

Americans are awakening to unpalatable facts--that the enterprise system which built our nation and made it strong is being subtly undermined; that advocates of backdoor socialism and communism thrive in our midst; most dangerous of all, that our young people are misinformed on economics.

For example, a recent survey of high school seniors reveals that they estimated that it takes only an $81 investment to provide a job. Actually, as shown by the 1947 census, the 2256 establishments of the iron and steel industry invested $545 per worker that year alone in *new* plant and equipment. Total investment to provide one job runs well above $10,000.

These youth had a similarly distorted picture of profits. They believe shareholders receive 24% of the sales dollar whereas they receive an average of less than 3%.

Misinformed minds are a ready field for imported false philosophies. And it is up to you, a business leader in your community, to take responsibility toward correcting these misunderstandings. The American businessman must not permit himself to be lost in Rip Van Winkle befuddlement.

THE YOUNGSTOWN SHEET & TUBE CO. 1900 YOUNGSTOWN 1 1950 50 YEARS OF SERVICE

The Youngstown Sheet and Tube Company
General Offices--Youngstown 1, Ohio
Export Offices--500 Fifth Avenue, New York
MANUFACTURERS OF CARBON ALLOY AND YOLOY STEELS

ELECTROLYTIC TIN PLATE - COKE TIN PLATE - WIRE - COLD FINISHED CARBON AND ALLOY BARS - PIPE AND TUBULAR PRODUCTS - CONDUIT - RODS - SHEETS - PLATES - BARS - RAILROAD TRACK SPIKES.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1950

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1950	1949
Louisiana & Arkansas	June	756	1,578,400	67,100	1,716,904	217,737	188,521	46,146	492,165	1,002,920	58.4	713,984	288,025	341,592	257,698
	6 mos.	756	8,847,149	380,126	9,643,008	1,144,914	1,074,266	289,483	2,897,777	5,752,504	59.7	3,890,504	1,549,704	1,845,131	1,565,997
Louisville & Nashville	June	4,779	14,179,556	1,023,441	16,095,574	2,308,944	3,371,184	306,366	6,272,153	12,828,595	79.7	3,266,979	2,072,449	1,776,219	1,022,681
	6 mos.	4,779	81,992,734	5,614,514	92,905,160	13,513,096	19,340,334	1,850,617	37,378,910	75,411,799	81.2	17,493,361	11,709,858	9,320,297	7,638,482
Maine Central	June	981	1,615,297	156,605	1,914,624	438,667	370,683	21,342	664,791	1,564,200	81.7	350,424	200,991	151,073	96,092
	6 mos.	981	10,401,012	712,698	11,865,159	2,288,318	2,251,654	116,079	4,279,084	9,337,512	78.7	2,527,647	1,231,574	1,029,705	1,350,069
Midland Valley	June	334	164,502	5	167,315	49,475	19,594	3,837	54,416	134,406	80.3	32,909	17,793	4,114	8,503
	6 mos.	334	966,579	21	984,438	238,742	103,338	23,098	332,856	743,467	75.5	240,971	109,256	63,148	45,948
Minneapolis & St. Louis	June	1,416	1,582,104	7,359	1,635,841	301,229	237,049	103,057	499,130	1,236,149	75.6	399,692	201,356	176,550	11,123
	6 mos.	1,416	8,499,511	39,628	8,793,325	1,575,079	1,489,305	657,521	2,955,656	7,256,030	82.5	1,537,295	789,511	633,142	410,809
Minneapolis, St. Paul & S. S. Marie	June	3,224	2,847,317	102,645	3,134,550	763,327	492,205	72,605	1,230,002	2,664,980	85.0	469,570	230,292	202,833	504,454
	6 mos.	3,224	13,935,370	404,936	15,168,880	3,734,228	3,118,723	395,738	7,000,647	14,889,662	98.2	279,218	1,204,956	—1,124,027	—343,614
Mississippi Central	June	148	187,623	.....	191,129	36,431	24,808	12,489	50,966	132,989	69.6	58,140	24,897	25,695	7,897
	6 mos.	148	1,070,027	81	1,092,467	247,824	152,820	74,881	297,519	826,598	75.7	265,869	112,905	93,035	69,764
Missouri-Illinois	June	172	386,016	260	389,149	65,489	48,885	7,752	105,481	234,213	60.2	154,936	75,998	71,203	72,100
	6 mos.	172	2,192,567	1,371	2,208,460	349,776	311,532	43,916	571,125	1,318,520	59.7	889,940	478,565	397,646	478,025
Missouri-Kansas-Texas Lines	June	3,243	5,617,557	377,272	6,484,591	912,331	912,836	219,798	2,305,912	4,622,054	71.3	1,862,537	793,463	744,582	452,098
	6 mos.	3,249	30,840,155	1,968,740	35,621,983	5,507,252	5,101,862	1,336,563	13,118,438	26,733,149	75.0	8,888,834	3,603,719	3,431,158	2,821,551
Missouri Pacific	June	6,966	14,592,490	957,715	17,142,037	2,805,205	3,022,582	418,731	6,290,662	13,129,062	76.6	4,012,975	1,450,430	2,015,168	1,556,577
	6 mos.	6,968	83,344,348	4,913,986	97,065,371	14,886,519	17,392,479	2,415,498	38,167,239	76,182,433	78.5	20,882,938	7,164,629	10,303,745	10,114,246
Gulf Coast Lines	June	1,711	2,846,851	72,016	3,091,763	656,176	532,632	72,612	1,087,769	2,482,808	80.3	608,955	144,020	246,877	419,064
	6 mos.	1,711	19,246,154	447,343	20,636,904	3,742,192	2,755,181	447,249	6,522,067	14,212,754	68.9	6,424,150	1,895,852	2,934,132	3,067,586
International-Great Northern	June	1,110	2,128,488	187,303	2,553,847	505,466	503,533	49,492	1,030,348	2,207,132	86.4	346,715	65,214	140,677	309,200
	6 mos.	1,110	13,430,316	946,315	15,839,185	2,910,178	2,744,377	301,566	6,104,148	12,712,368	80.3	3,126,817	846,768	1,510,08	1,369,879
Monongehela	June	170	698,230	680	702,427	92,066	67,015	1,019	217,202	381,707	54.3	320,720	32,558	147,088	49,213
	6 mos.	170	2,594,353	2,983	2,620,098	395,462	348,009	5,802	1,042,213	1,824,959	69.7	795,139	179,356	103,282	446,919
Montour	June	51	322,849	.....	323,072	37,888	84,469	791	92,219	229,520	71.0	93,552	62,900	75,877	65,295
	6mos.	51	1,216,495	.....	1,219,480	136,631	375,327	5,122	405,334	985,611	80.8	233,869	238,394	264,295	389,788
Nashville, Chatt. & St. Louis	June	1,049	2,449,837	144,636	2,844,864	549,514	427,449	105,123	1,041,175	2,235,544	78.6	609,320	303,855	316,179	127,300
	6 mos.	1,049	14,187,873	822,575	16,613,930	2,898,227	2,317,997	622,454	6,206,037	12,686,537	76.4	3,927,393	1,902,239	1,887,592	1,465,618
New York Central	June	10,733	46,022,791	10,971,458	63,453,735	6,717,659	14,288,452	1,009,925	26,579,061	51,496,972	81.2	11,956,763	4,540,912	5,597,181	2,286,167
	6 mos.	10,733	251,336,730	53,953,304	339,970,460	39,505,962	76,546,458	5,938,024	158,616,045	297,620,316	87.5	42,350,144	26,110,120	6,086,811	13,223,803
Pittsburgh & Lake Erie	June	221	3,742,572	76,422	3,978,197	422,277	982,802	67,980	1,252,033	2,915,103	73.3	1,063,094	738,244	1,076,911	377,485
	6 mos.	221	18,082,282	418,571	19,220,324	2,029,826	5,050,291	409,830	7,011,065	15,577,942	81.0	3,642,382	3,079,979	3,858,226	4,404,196
New York, Chicago & St. Louis	June	2,192	11,492,760	140,496	12,021,089	1,479,116	1,878,716	280,931	3,926,613	7,971,217	66.3	4,049,872	1,638,607	2,021,587	1,315,561
	6 mos.	2,192	67,107,338	828,606	69,898,484	8,662,652	10,935,493	1,720,762	23,139,198	46,834,838	67.0	23,063,646	9,543,318	11,851,069	10,663,751
New York, New Haven & Hartford	June	1,795	7,305,180	4,014,177	12,447,408	1,887,900	1,850,617	197,651	5,041,425	9,618,131	77.3	2,829,277	1,055,000	963,640	785,103
	6 mos.	1,796	42,382,349	22,262,001	70,781,163	9,859,213	10,821,637	1,209,223	29,968,856	55,816,646	78.9	14,964,517	5,248,000	4,874,850	4,809,281
New York Connecting	June	21	257,454	.....	271,075	87,838	17,530	.....	55,322	163,158	60.2	107,917	58,102	77,507	—2,424
	6 mos.	21	1,449,405	.....	1,510,328	390,810	115,029	.....	356,794	877,760	58.1	632,568	363,249	351,471	172,165
New York, Ontario & Western	June	544	594,861	13,915	639,286	127,113	89,695	25,139	277,256	550,290	86.1	88,996	39,262	—23,236	82
	6 mos.	544	3,113,808	22,718	3,323,587	583,152	528,549	149,237	1,663,665	3,100,773	93.3	222,814	227,729	—429,992	—395,672
New York, Susquehanna & Western	June	120	368,835	36,991	419,110	40,844	45,311	6,500	176,927	299,455	71.4	119,655	31,177	50,212	52,588
	6 mos.	120	2,162,982	236,093	2,470,960	270,606	306,703	38,017	1,043,718	1,826,208	73.9	644,752	185,045	253,766	132,873
Norfolk & Western	June	2,129	13,566,401	412,873	14,556,701	2,299,124	2,922,572	260,450	4,064,296	10,042,369	69.0	4,514,332	2,847,374	2,709,457	1,903,881
	6 mos.	2,129	71,685,596	2,009,404	76,582,836	11,935,362	16,344,275	1,535,955	24,122,663	56,967,500	74.4	19,615,336	12,799,496	12,056,568	14,380,419
Norfolk Southern	June	673	736,838	.....	753,188	157,907	107,286	44,360	238,385	609,666	80.9	143,522	64,760	52,691	67,945
	6 mos.	679	4,286,691	1,392	4,390,161	922,145	598,018	255,985	1,443,917	3,574,069	81.4	816,092	355,891	289,418	317,00 5
Northern Pacific	June	6,903	11,483,568	671,544	13,093,696	2,327,935	2,451,585	270,637	4,466,529	10,122,720	77.3	2,970,976	1,179,337	2,153,820	1,944,756
	6 mos.	6,894	56,860,540	2,672,111	64,469,233	12,295,039	15,207,595	1,537,252	27,129,578	59,628,879	92.5	4,840,354	6,864,700	736,977	1,813,295
Northwestern Pacific	June	331	947,802	4,563	981,406	185,771	90,584	4,055	405,212	699,031	71.2	282,375	108,426	108,688	28,688
	6 mos.	331	4,578,732	23,229	4,736,208	1,066,034	509,178	27,214	2,116,138	3,803,689	80.3	932,519	379,788	178,610	—299,490
Oklahoma City-Ada-Atoka	June	132	70,875	.....	71,532	25,971	4,183	1,429	21,195	56,739	79.3	14,793	5,403	—1,092	7,396
	6 mos.	132	471,572	.....	476,768	135,535	23,854	8,589	130,653	322,933	67.7	153,835	56,192	20,669	57,666
Pennsylvania	June	10,118	61,590,799	12,063,386	80,815,470	10,390,419	17,329,904	1,180,444	31,736,352	63,410,496	78.5	17,404,974	8,097,305	7,536,456	2,394,448
	6 mos.	10,118	306,847,847	67,508,804	411,170,331	50,885,517	94,994,310	6,680,787	182,851,800	352,081,397	85.6	59,088,934	30,131,757	20,097,095	26,339,595
Pennsylvania-Reading Seashore Lines	June	386	563,538	238,113	827,851	141,713	84,515	13,633	595,664	870,859	105.2	—43,018	89,457	—273,117	—245,279
	6 mos.	386	2,799,862	860,795	3,777,091	1,059,361	1,167,701	62,010	3,169,782	5,632,986	149.1	—1,855,895	526,109	—3,073,189	—2,905,375

Table is continued on next left-hand page

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REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1950

Name of road		Av. mileage operated during period	Operating Revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1950	1949
Pittsburg & Shawmut	June	97	244,567	.....	245,410	47,640	54,534	3,482	58,607	170,957	69.7	74,453	37,973	30,125	54,789
	6 mos.	97	1,196,156	.....	1,200,151	191,038	236,614	17,582	301,186	805,045	67.1	395,106	110,068	261,762	213,769
Pittsburgh & West Virginia	June	132	707,704	.....	728,111	158,786	146,445	42,880	178,796	562,337	77.2	165,774	78,609	114,207	104,676
	6 mos.	132	3,855,369	.....	3,971,469	758,593	797,928	249,502	1,010,410	3,025,898	76.2	945,571	457,679	678,142	728,297
Reading	June	1,317	8,712,837	587,985	9,774,362	1,547,341	2,071,702	140,312	3,677,213	7,728,407	79.1	2,045,955	936,364	1,035,615	757,109
	6 mos.	1,317	43,673,333	3,205,793	54,540,335	7,538,831	11,401,945	795,293	22,142,488	43,625,108	80.0	10,915,227	5,069,134	5,795,548	5,008,293
Richmond, Fredericksburg & Potomac	June	118	1,265,103	461,263	1,925,352	267,076	237,526	18,285	526,706	1,151,474	59.8	773,878	327,333	346,443	68,602
	6 mos.	118	7,326,606	2,975,473	11,737,131	1,390,607	1,661,514	111,689	3,896,038	7,789,209	66.4	3,947,922	1,706,566	1,603,837	457,301
Rutland	June	407	345,611	22,409	439,868	72,443	75,762	14,011	235,077	417,057	94.8	22,811	28,488	—32,702	—25,239
	6 mos.	407	2,108,380	148,258	2,637,136	433,476	481,065	84,969	1,471,446	2,576,262	97.7	60,874	168,631	—238,765	—373,121
Sacramento Northern	June	271	191,333	.....	197,029	47,308	14,938	1,881	70,947	142,317	72.2	54,712	26,005	14,453	—63,296
	6 mos.	271	1,026,356	344	1,056,039	297,179	100,031	12,828	392,793	847,525	80.3	208,514	82,200	35,960	—351,584
St. Louis-San Francisco	June	4,635	8,131,328	445,410	9,226,950	1,456,904	1,680,280	236,107	3,396,630	7,180,704	77.8	2,046,246	1,039,831	1,057,299	706,600
	6 mos.	4,638	45,913,881	2,523,922	52,064,930	8,646,531	9,139,475	1,385,403	19,887,280	41,438,794	79.6	10,626,136	5,464,104	5,298,404	3,665,406
St. Louis, San Francisco & Texas	June	159	362,418	6,523	392,454	57,059	33,822	15,827	138,475	255,343	65.1	137,111	40,333	43,201	—18,947
	6 mos.	159	1,766,082	52,339	1,934,412	301,637	197,223	91,441	809,712	1,459,804	75.5	474,608	81,357	74,101	122,619
St. Louis Southwestern Lines	June	1,569	4,862,203	41,536	5,089,656	614,167	664,753	145,133	1,525,444	3,120,293	61.3	1,969,363	645,429	1,085,243	523,037
	6 mos.	1,569	26,980,174	234,682	28,326,355	4,412,879	3,478,348	841,876	8,845,826	18,603,766	65.7	9,722,589	3,767,693	4,680,578	4,446,293
Seaboard Air Line	June	4,146	9,045,987	930,016	10,667,876	1,592,785	1,886,606	318,452	3,718,938	7,953,043	74.6	2,714,833	1,184,833	1,342,202	763,999
	6 mos.	4,146	55,394,016	7,557,911	67,639,659	10,762,684	11,446,691	1,909,307	23,907,577	50,954,640	75.3	16,685,019	7,177,051	7,751,684	5,694,424
Southern Ry	June	6,347	16,301,128	1,277,221	18,909,968	2,632,041	3,543,098	355,155	6,601,244	13,932,917	73.7	4,977,051	2,324,723	2,377,737	1,609,263
	6 mos.	6,347	93,068,620	7,440,949	108,268,000	15,007,239	20,025,386	2,108,954	39,354,253	81,026,407	74.8	27,241,593	12,612,795	12,745,080	9,759,124
Alabama Great Southern	June	316	1,224,567	62,467	1,392,396	206,908	286,552	26,466	485,194	1,058,900	76.0	333,496	240,342	100,852	53,308
	6 mos.	316	6,910,376	444,208	7,962,647	1,180,742	1,657,410	166,765	2,820,195	6,152,322	77.3	1,810,325	1,126,168	785,907	776,261
Cinn., New Orleans & Texas Pacific	June	337	3,051,951	90,360	3,295,043	414,617	563,750	65,643	929,354	2,080,402	63.1	1,215,641	578,050	632,775	551,852
	6 mos.	337	17,089,563	999,657	19,028,120	2,351,459	3,277,785	358,650	5,681,420	12,329,121	64.8	6,698,999	3,182,833	3,443,265	3,477,130
Georgia Southern & Florida	June	397	522,233	66,610	647,440	139,706	69,196	7,115	186,903	418,456	64.6	228,984	66,502	54,617	—17,398
	6 mos.	397	2,952,045	469,073	3,758,131	790,008	290,456	41,123	1,182,554	2,421,628	64.4	1,336,503	303,123	312,991	270,683
New Orleans & Northeastern	June	204	912,460	52,319	1,014,046	139,132	89,477	15,359	236,479	518,340	51.1	495,706	222,953	237,107	131,942
	6 mos.	204	4,769,942	297,218	5,342,621	855,109	577,166	97,897	1,281,137	3,038,439	56.9	2,304,182	1,054,660	993,398	856,614
Southern Pacific	June	8,144	36,692,316	3,693,872	42,946,546	4,455,059	7,938,354	722,755	15,242,410	30,253,402	70.4	12,693,144	5,372,464	4,910,503	4,000,591
	6 mos.	8,143	178,233,866	17,333,303	208,312,380	25,051,254	42,690,129	4,168,681	79,169,501	161,560,517	77.6	46,751,863	22,964,782	15,302,412	10,311,762
Texas & New Orleans	June	4,316	8,484,634	717,620	9,834,797	1,659,412	1,465,817	212,963	3,741,367	7,526,229	76.5	2,308,568	889,559	890,603	1,081,174
	6 mos.	4,316	50,541,744	3,529,641	57,769,214	9,625,245	8,770,022	1,270,195	21,599,933	43,946,963	76.1	13,822,251	5,729,905	4,800,788	5,134,403
Spokane International	June	152	222,377	1,111	235,528	43,280	18,457	4,355	55,419	130,850	55.6	104,678	36,842	50,764	29,997
	6 mos.	152	1,065,458	5,714	1,143,422	246,865	109,574	24,988	307,050	742,376	64.9	401,046	121,918	193,697	27,838
Spokane, Portland & Seattle	June	944	2,081,762	95,048	2,292,740	470,742	277,863	16,591	682,161	1,526,248	66.6	766,492	172,245	500,181	220,716
	6 mos.	944	10,995,648	430,425	12,070,497	2,613,167	1,549,136	120,543	4,074,085	8,825,767	73.1	3,244,730	999,772	1,750,255	1,006,399
Tennessee Central	June	286	330,642	3,641	352,174	78,572	59,603	10,513	128,509	295,618	83.9	56,556	24,210	6,459	—134
	6 mos.	286	2,122,786	15,482	2,246,026	424,144	332,456	60,559	773,740	1,694,840	75.5	551,186	146,133	212,778	109,675
Texas & Northern	June	8	139,002	.....	150,269	4,548	4,751	1,244	20,825	34,502	23.0	115,767	39,662	62,142	25,955
	6 mos.	8	463,971	.....	526,725	17,836	26,973	3,880	96,106	169,507	32.2	357,218	116,415	176,265	162,090
Texas & Pacific	June	1,846	4,738,749	407,841	5,615,780	815,196	908,774	152,700	1,948,114	4,106,274	73.1	1,509,506	510,526	730,219	623,494
	6 mos.	1,846	27,207,959	2,050,847	31,792,559	4,797,357	5,075,165	934,834	11,286,364	23,739,973	74.7	8,052,586	2,508,944	3,694,691	3,330,420
Texas Mexican	June	162	235,720	.....	264,229	56,715	22,198	6,027	58,507	159,508	60.4	104,721	38,202	40,857	29,984
	6 mos.	162	1,511,730	.....	1,667,366	341,884	129,617	36,989	321,624	925,544	55.5	741,822	296,127	311,752	234,316
Toledo, Peoria & Western	June	239	471,402	4	483,363	98,761	28,159	37,347	103,548	294,944	61.0	188,419	67,237	79,843	30,005
	6 mos.	239	2,502,614	40	2,540,292	405,734	206,399	214,039	598,624	1,568,458	61.7	971,834	352,576	404,257	324,410
Union Pacific	June	9,719	30,846,665	3,482,933	37,247,731	6,514,114	6,151,997	769,063	12,493,475	27,915,155	74.9	9,332,576	5,012,024	2,775,849	1,574,185
	6 mos.	9,719	162,222,858	14,867,299	192,151,103	28,907,979	36,506,415	4,884,367	68,688,582	149,635,599	77.9	42,515,504	24,959,647	10,439,338	—512,587
Utah	June	111	103,527	.....	104,680	18,262	49,343	698	45,293	120,654	115.3	—15,974	11,570	—14,499	—29,962
	6 mos.	111	594,791	.....	597,967	111,190	288,095	4,167	283,791	732,474	122.5	—134,507	70,221	—150,983	—129,668
Virginian	June	643	2,962,838	2,665	3,016,791	401,473	608,115	37,460	655,796	1,778,871	59.0	1,237,920	624,500	869,266	384,687
	6 mos.	658	14,559,000	13,371	14,870,104	2,050,183	3,239,617	222,758	3,488,419	9,457,185	63.6	5,412,919	2,803,100	3,804,003	4,099,471
Wabash	June	2,393	7,499,814	431,970	8,507,527	1,310,864	1,129,727	257,912	3,417,208	6,446,052	75.8	2,061,475	787,478	775,542	469,695
	6 mos.	2,393	43,524,051	2,076,205	48,790,606	6,704,571	6,668,797	1,504,014	20,524,982	37,216,056	76.3	11,574,550	4,626,384	4,289,791	2,623,014
Ann Arbor	June	294	751,900	2,468	778,900	88,185	98,670	22,258	322,370	549,112	70.5	229,788	82,776	111,422	1,746
	6 mos.	294	4,412,804	9,428	4,495,164	506,059	591,475	136,949	1,995,731	3,327,432	74.0	1,167,732	341,747	641,875	232,637
Western Maryland	June	837	3,350,694	13,373	3,485,269	497,322	735,646	73,869	1,025,045	2,457,967	70.5	1,027,302	544,000	709,856	516,069
	6 mos.	837	18,009,693	46,722	18,799,879	2,467,964	3,830,549	434,072	5,880,716	13,416,724	71.4	5,383,155	2,754,000	3,650,248	4,077,505
Western Pacific	June	1,195	2,733,123	214,137	3,027,964	456,712	551,551	140,099	964,118	2,321,563	76.7	706,401	292,019	385,906	330,262
	6 mos.	1,195	18,534,744	1,188,661	20,204,541	3,188,839	3,345,047	855,920	6,511,730	14,967,397	74.1	5,237,144	2,253,055	2,643,771	1,570,015
Wisconsin Central	June	1,051	2,325,965	49,352	2,552,062	466,787	312,938	63,831	892,674	1,823,002	71.4	729,060	138,977	451,553	248,364
	6 mos.	1,051	12,300,000	185,104	13,204,975	2,025,063	2,059,118	356,710	5,333,380	10,293,671	78.0	2,911,304	794,889	1,246,491	1,158,332

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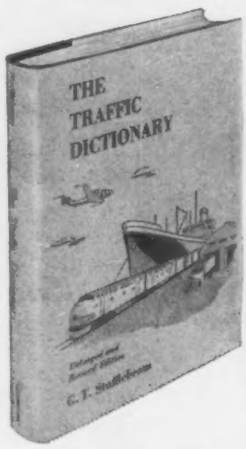

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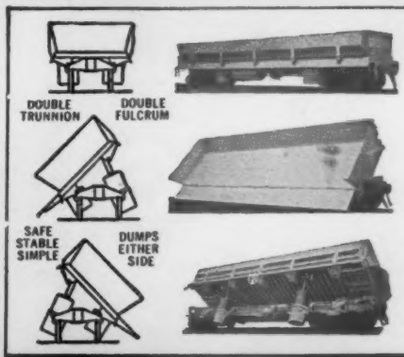

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